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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Kekuda, *et al*

SERIAL NUMBER: 10/037,417

EXAMINER: Not yet assigned

FILING DATE: January 4, 2002

ART UNIT: 1641

FOR: PROTEINS AND NUCLEIC ACIDS ENCODING SAME

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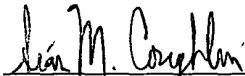
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**STATEMENT IN SUPPORT OF COMPUTER READABLE
FORM SUBMISSION UNDER 37 C.F.R. § 1.821(f)**

I hereby state that the content of the paper and computer readable forms of the Sequence Listing, submitted in the above-identified application in accordance with 37 C.F.R. § 1.821(c) and § 1.821(e), respectively, are the same. No new matter is added at this time.

Respectfully submitted,

Dated: September 20, 2002



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TRA 1704361v1

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SEQUENCE LISTING



<110> Kekuda, Ramesh
Alsobrook II, John P
Tchernev, Velizar T
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Spytek, Kimberly A
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Burgess, Catherine E
Vernet, Corine A.M.
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Sciore, Paul
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 1890 1895 1900
 Asn Arg Cys Ala Pro Gly Phe Phe Gly Asn Pro Leu Val Leu Gly Ser
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 1940 1945 1950

His Thr Thr Gly Pro Arg Cys Glu Ile Cys Ala Pro Gly Phe Tyr Gly
 1955 1960 1965
 Asn Ala Leu Leu Pro Gly Asn Cys Thr Arg Cys Asp Cys Thr Pro Cys
 1970 1975 1980
 Gly Thr Glu Ala Cys Asp Pro His Ser Gly His Cys Leu Cys Lys Ala
 1985 1990 1995 2000
 Gly Val Thr Gly Arg Arg Cys Asp Arg Cys Gln Glu Gly His Phe Gly
 2005 2010 2015
 Phe Asp Gly Cys Gly Cys Arg Pro Cys Ala Cys Gly Pro Ala Ala
 2020 2025 2030
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Thr Gln Ala Gly Phe Ala Asp Gly Ala Pro His Tyr Val Ala Phe Tyr
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 Ser Asn Ala Thr Gly Val Trp Leu Tyr Val Asp Asp Gln Leu Gln Gln
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 Gly Pro Pro Arg Leu Leu Leu Gly Gly Leu Pro Glu Ser Gly Thr Ile
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Leu	Cys	Asp	Gly	Gln	Trp	His	Arg	Leu	Ala	Val	Met	Lys	Ser	Gly	Asn
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Cys	Met	Arg	Arg	Leu	Ala	Val	Asn	Arg	Ser	Pro	Val	Ala	Met	Thr	Arg
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 Val Ser Leu Asp Arg Thr Leu Gln Phe Gly His Met Ser Val Thr Val
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 Glu Arg Gln Met Ile Gln Glu Thr Lys Gly Asp Thr Val Ala Pro Gly
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 Ala Glu Gly Leu Leu Asn Leu Arg Pro Asp Asp Phe Val Phe Tyr Val
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Gly Gly Tyr Pro Ser Thr Phe Thr Pro Pro Pro Leu Leu Arg Phe Pro
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 Gly Tyr Arg Gly Cys Ile Glu Met Asp Thr Leu Asn Glu Glu Val Val
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Phe Ser Gly Cys Val Lys Arg Leu Arg Leu His Gly Arg Pro Leu Gly
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Ala Pro Thr Arg Met Ala Gly Val Thr Pro Cys Ile Leu Gly Pro Leu
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Glu Ala Gly Leu Phe Phe Pro Gly Ser Gly Gly Val Ile Thr Leu Asp
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Leu Pro Gly Ala Thr Leu Pro Asp Val Gly Leu Glu Leu Glu Val Arg
755 760 765

Pro Leu Ala Val Thr Gly Leu Ile Phe His Leu Gly Gln Ala Arg Thr
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Pro Pro Tyr Leu Gln Leu Gln Val Leu Leu Arg Ala Asp Asp Gly Ala
785 790 795 800

Gly Glu Phe Ser Thr Ser Val Thr Arg Pro Ser Val Leu Cys Asp Gly
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Gln Trp His Arg Leu Ala Val Met Lys Ser Gly Asn Val Leu Arg Leu
820 825 830

Glu Val Asp Ala Gln Ser Asn His Thr Val Gly Pro Leu Leu Ala Ala
835 840 845

Ala Ala Gly Ala Pro Ala Pro Leu Tyr Leu Gly Gly Leu Pro Glu Pro
850 855 860

Met Ala Val Gln Pro Trp Pro Pro Ala Tyr Cys Gly Cys Met Arg Arg
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 Gln Leu Ser Ser Leu Trp Glu Glu Asn Gln Ala Leu Ala Thr Gln Thr
 305 310 315 320
 Arg Asp Arg Leu Ala Gln His Glu Ala Gly Leu Met Asp Leu Arg Glu
 325 330 335
 Ala Leu Asn Arg Ala Val Asp Ala Thr Arg Glu Ala Gln Glu Leu Asn
 340 345 350
 Ser Arg Asn Gln Glu Arg Leu Glu Glu Ala Leu Gln Arg Lys Gln Glu
 355 360 365
 Leu Ser Arg Asp Asn Ala Thr Leu Gln Ala Thr Leu His Ala Ala Arg
 370 375 380

Asp Thr Leu Ala Ser Val Phe Arg Leu Leu His Ser Leu Asp Gln Ala
 385 390 395 400
 Lys Glu Glu Leu Glu Arg Leu Ala Ala Ser Leu Asp Gly Ala Arg Thr
 405 410 415
 Pro Leu Leu Gln Arg Met Gln Thr Phe Ser Pro Ala Gly Ser Lys Leu
 420 425 430
 Arg Leu Val Glu Ala Ala Glu Ala His Ala Gln Gln Leu Gly Gln Leu
 435 440 445
 Ala Leu Asn Leu Ser Ser Ile Ile Leu Asp Val Asn Gln Asp Arg Leu
 450 455 460
 Thr Gln Arg Ala Ile Glu Ala Ser Asn Ala Tyr Ser Arg Ile Leu Gln
 465 470 475 480
 Ala Val Gln Ala Ala Glu Asp Ala Ala Gly Gln Ala Leu Gln Gln Ala
 485 490 495
 Asp His Thr Trp Ala Thr Val Val Arg Gln Gly Leu Val Asp Arg Ala
 500 505 510
 Gln Gln Leu Leu Ala Asn Ser Thr Ala Leu Glu Glu Ala Met Leu Gln
 515 520 525
 Glu Gln Gln Arg Leu Gly Leu Val Trp Ala Ala Leu Gln Gly Ala Arg
 530 535 540
 Thr Gln Leu Arg Asp Val Arg Ala Lys Lys Asp Gln Leu Glu Ala His
 545 550 555 560
 Ile Gln Ala Ala Gln Ala Met Leu Ala Met Asp Thr Asp Glu Thr Ser
 565 570 575
 Lys Lys Ile Ala His Ala Lys Ala Val Ala Ala Glu Ala Gln Asp Thr
 580 585 590
 Ala Thr Arg Val Gln Ser Gln Leu Gln Ala Met Gln Glu Asn Val Glu
 595 600 605
 Arg Trp Gln Gly Gln Tyr Glu Gly Leu Arg Gly Gln Asp Leu Gly Gln
 610 615 620
 Ala Val Leu Asp Ala Gly His Ser Val Ser Thr Leu Glu Lys Thr Leu
 625 630 635 640
 Pro Gln Leu Leu Ala Lys Leu Ser Ile Leu Glu Asn Arg Gly Val His
 645 650 655
 Asn Ala Ser Leu Ala Leu Ser Ala Ser Ile Gly Arg Val Arg Glu Leu
 660 665 670
 Ile Ala Gln Ala Arg Gly Ala Ala Ser Lys Val Lys Val Pro Met Lys
 675 680 685

Phe Asn Gly Arg Ser Gly Val Gln Leu Arg Thr Pro Arg Asp Leu Ala
 690 695 700
 Asp Leu Ala Ala Tyr Thr Ala Leu Lys Phe Tyr Leu Gln Gly Pro Glu
 705 710 715 720
 Pro Glu Pro Gly Gln Gly Thr Glu Asp Arg Phe Val Met Tyr Met Gly
 725 730 735
 Ser Arg Gln Ala Thr Gly Asp Tyr Met Gly Val Ser Leu Arg Asp Lys
 740 745 750
 Lys Val His Trp Val Tyr Gln Leu Gly Glu Ala Gly Pro Ala Val Leu
 755 760 765
 Ser Ile Asp Glu Asp Ile Gly Glu Gln Phe Ala Ala Val Ser Leu Asp
 770 775 780
 Arg Thr Leu Gln Phe Gly His Met Ser Val Thr Val Glu Arg Gln Met
 785 790 795 800
 Ile Gln Glu Thr Lys Gly Asp Thr Val Ala Pro Gly Ala Glu Gly Leu
 805 810 815
 Leu Asn Leu Arg Pro Asp Asp Phe Val Phe Tyr Val Gly Gly Tyr Pro
 820 825 830
 Ser Thr Phe Thr Pro Pro Leu Leu Arg Phe Pro Gly Tyr Arg Gly
 835 840 845
 Cys Ile Glu Met Asp Thr Leu Asn Glu Glu Val Val Ser Leu Tyr Asn
 850 855 860
 Phe Glu Arg Thr Phe Gln Leu Asp Thr Ala Val Asp Arg Pro Cys Ala
 865 870 875 880
 Arg Ser Lys Ser Thr Gly Asp Pro Trp Leu Thr Asp Gly Ser Tyr Leu
 885 890 895
 Asp Gly Thr Gly Phe Ala Arg Ile Ser Phe Asp Ser Gln Ile Ser Thr
 900 905 910
 Thr Lys Arg Phe Glu Gln Glu Leu Arg Leu Val Ser Tyr Ser Gly Val
 915 920 925
 Leu Phe Phe Leu Lys Gln Gln Ser Gln Phe Leu Cys Leu Ala Val Gln
 930 935 940
 Glu Gly Ser Leu Val Leu Leu Tyr Asp Phe Gly Ala Gly Leu Lys Lys
 945 950 955 960
 Ala Val Pro Leu Gln Pro Pro Pro Pro Leu Thr Ser Ala Ser Lys Ala
 965 970 975
 Ile Gln Val Phe Leu Leu Gly Gly Ser Arg Lys Arg Val Leu Val Arg
 980 985 990

Val Glu Arg Ala Thr Val Tyr Ser Val Glu Gln Asp Asn Asp Leu Glu
 995 1000 1005

 Leu Ala Asp Ala Tyr Tyr Leu Gly Gly Val Pro Pro Asp Gln Leu Pro
 1010 1015 1020

 Pro Ser Leu Arg Trp Leu Phe Pro Thr Gly Gly Ser Val Arg Gly Cys
 1025 1030 1035 1040

 Val Lys Gly Ile Lys Ala Leu Gly Lys Tyr Val Asp Leu Lys Arg Leu
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 Asn Thr Thr Gly Val Ser Ala Gly Cys Thr Ala Asp Leu Leu Val Gly
 1060 1065 1070

 Arg Ala Met Thr Phe His Gly His Gly Phe Leu Arg Leu Ala Leu Ser
 1075 1080 1085

 Asn Val Ala Pro Leu Thr Gly Asn Val Tyr Ser Gly Phe Gly Phe His
 1090 1095 1100

 Ser Ala Gln Asp Ser Ala Leu Leu Tyr Tyr Arg Ala Ser Pro Asp Gly
 1105 1110 1115 1120

 Leu Cys Gln Val Ser Leu Gln Gln Gly Arg Val Ser Leu Gln Leu Leu
 1125 1130 1135

 Arg Thr Glu Val Lys Thr Gln Ala Gly Phe Ala Asp Gly Ala Pro His
 1140 1145 1150

 Tyr Val Ala Phe Tyr Ser Asn Ala Thr Gly Val Trp Leu Tyr Val Asp
 1155 1160 1165

 Asp Gln Leu Gln Gln Met Lys Pro His Arg Gly Pro Pro Pro Glu Leu
 1170 1175 1180

 Gln Pro Gln Pro Glu Gly Pro Pro Arg Leu Leu Leu Gly Gly Leu Pro
 1185 1190 1195 1200

 Glu Ser Gly Thr Ile Tyr Asn Phe Ser Gly Cys Ile Ser Asn Val Phe
 1205 1210 1215

 Val Gln Arg Leu Leu Gly Pro Gln Arg Val Phe Asp Leu Gln Gln Asn
 1220 1225 1230

 Leu Gly Ser Val Asn Val Ser Thr Gly Cys Ala Pro Ala Leu Gln Ala
 1235 1240 1245

 Gln Thr Pro Gly Leu Gly Pro Arg Gly Leu Gln Ala Thr Ala Arg Lys
 1250 1255 1260

 Ala Ser Arg Arg Ser Arg Gln Pro Ala Arg His Pro Ala Cys Met Leu
 1265 1270 1275 1280

 Pro Pro His Leu Arg Thr Thr Arg Asp Ser Tyr Gln Phe Gly Gly Ser
 1285 1290 1295

Leu Ser Ser His Leu Glu Phe Val Gly Ile Leu Ala Arg His Arg Asn
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 Trp Pro Ser Leu Ser Met His Val Leu Pro Arg Ser Ser Arg Gly Leu
 1315 1320 1325
 Leu Leu Phe Thr Ala Arg Leu Arg Pro Gly Ser Pro Ser Leu Ala Leu
 1330 1335 1340
 Phe Leu Ser Asn Gly His Phe Val Ala Gln Met Glu Gly Leu Gly Thr
 1345 1350 1355 1360
 Arg Leu Arg Ala Gln Ser Arg Gln Arg Ser Arg Pro Gly Arg Trp His
 1365 1370 1375
 Lys Val Ser Val Arg Trp Glu Lys Asn Arg Ile Leu Leu Val Thr Asp
 1380 1385 1390
 Gly Ala Arg Ala Trp Ser Gln Glu Gly Pro His Arg Gln His Gln Gly
 1395 1400 1405
 Ala Glu His Pro Gln Pro His Thr Leu Phe Val Gly Gly Leu Pro Ala
 1410 1415 1420
 Ser Ser His Ser Ser Lys Leu Pro Val Thr Val Gly Phe Ser Gly Cys
 1425 1430 1435 1440
 Val Lys Arg Leu Arg Leu His Gly Arg Pro Leu Gly Ala Pro Thr Arg
 1445 1450 1455
 Met Ala Gly Val Thr Pro Cys Ile Leu Gly Pro Leu Glu Ala Gly Leu
 1460 1465 1470
 Phe Phe Pro Gly Ser Gly Gly Val Ile Thr Leu Asp Leu Pro Gly Ala
 1475 1480 1485
 Thr Leu Pro Asp Val Gly Leu Glu Leu Val Arg Pro Leu Ala Val
 1490 1495 1500
 Thr Gly Leu Ile Phe His Leu Gly Gln Ala Arg Thr Pro Pro Tyr Leu
 1505 1510 1515 1520
 Gln Leu Gln Val Leu Leu Arg Ala Asp Asp Gly Ala Gly Glu Phe Ser
 1525 1530 1535
 Thr Ser Val Thr Arg Pro Ser Val Leu Cys Asp Gly Gln Trp His Arg
 1540 1545 1550
 Leu Ala Val Met Lys Ser Gly Asn Val Leu Arg Leu Glu Val Asp Ala
 1555 1560 1565
 Gln Ser Asn His Thr Val Gly Pro Leu Leu Ala Ala Ala Gly Ala
 1570 1575 1580
 Pro Ala Pro Leu Tyr Leu Gly Gly Leu Pro Glu Pro Met Ala Val Gln
 1585 1590 1595 1600

Pro Trp Pro Pro Ala Tyr Cys Gly Cys Met Arg Arg Leu Ala Val Asn
1605 1610 1615

Arg Ser Pro Val Ala Met Thr Arg Ser Val Glu Val His Gly Ala Val
1620 1625 1630

Gly Ala Ser Gly Cys Pro Ala Ala
1635 1640

<210> 9
<211> 3105
<212> DNA
<213> *Homo sapiens*

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ctttccctt gtgggcatct taactgcaat tggcatggc ctcctgggaa cccgaggagc 180
caccgctcc cagttggagg aggtgttca ctctgaaaaa gagacgaaga gctcaagaat 240
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agaagcaga ta catcaacaat tccaaaagtt tttgactgaa ataagcaaac tcactaatga 360
ttatgaactg aacataacca acaggctgtt tggagaaaaa acataacctt tcctcaaaa 420
atacttagat tatgtgaaa aatattatca tgcacatctg gaacctgtt atttgtaaa 480
tgcagccgat gaaagtcgaa agaagatcaa ttccctgggtt gaaagcaaaa caaatgaaaa 540
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catggttta tttaaagggc aatgggacag ggagtttaag aaagaaaata ctaaggaaga 660
gaaattttgg atgaataaga gcacaagtaa atctgtacag atgatgacac agagccattc 720
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caacgaccta agcatgttt tgctctgca caacgacatc gatggcctgg agaagataat 840
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gaATGTTAA aACTAGTGTc ttcaAAATCCT caccaACATC caggattgtg tctttatgtat 2820
tatAGCCATT tttgttagtca aAAAGTGGCA tctcatggtg gtttaattt gcatttccat 2880
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ggTgAAATGT atacaAAATCA ttGCTCATT tttAAATTGG gttgtctgtc ttgtctctc 3000
atTTTATTGA gttAAATGAG ttCTTAATAA tctctggctt acaAGTCCTT aATTATCAA 3060
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<211> 400
<212> PRT
<213> Homo sapiens

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Gly Ile Leu Thr Ala Ile Gly Met Val Leu Leu Gly Thr Arg Gly Ala
35 40 45
Thr Ala Ser Gln Leu Glu Glu Val Phe His Ser Glu Lys Glu Thr Lys
50 55 60
Ser Ser Arg Ile Lys Ala Glu Glu Lys Glu Val Val Arg Ile Lys Ala
65 70 75 80
Glu Gly Lys Glu Ile Glu Asn Thr Glu Ala Val His Gln Gln Phe Gln
85 90 95
Lys Phe Leu Thr Glu Ile Ser Lys Leu Thr Asn Asp Tyr Glu Leu Asn
100 105 110
Ile Thr Asn Arg Leu Phe Gly Glu Lys Thr Tyr Leu Phe Leu Gln Lys
115 120 125
Tyr Leu Asp Tyr Val Glu Lys Tyr Tyr His Ala Ser Leu Glu Pro Val
130 135 140
Asp Phe Val Asn Ala Ala Asp Glu Ser Arg Lys Lys Ile Asn Ser Trp
145 150 155 160
Val Glu Ser Lys Thr Asn Glu Lys Ile Lys Asp Leu Phe Pro Asp Gly
165 170 175
Ser Ile Ser Ser Ser Thr Lys Leu Val Leu Val Asn Met Val Tyr Phe
180 185 190
Lys Gly Gln Trp Asp Arg Glu Phe Lys Lys Glu Asn Thr Lys Glu Glu
195 200 205

Lys Phe Trp Met Asn Lys Ser Thr Ser Lys Ser Val Gln Met Met Thr
 210 215 220
 Gln Ser His Ser Phe Ser Phe Thr Phe Leu Glu Asp Leu Gln Ala Lys
 225 230 235 240
 Ile Leu Gly Ile Pro Tyr Lys Asn Asn Asp Leu Ser Met Phe Val Leu
 245 250 255
 Leu Pro Asn Asp Ile Asp Gly Leu Glu Lys Ile Ile Asp Lys Ile Ser
 260 265 270
 Pro Glu Lys Leu Val Glu Trp Thr Ser Pro Gly His Met Glu Glu Arg
 275 280 285
 Lys Val Asn Leu His Leu Pro Arg Phe Glu Val Glu Asp Gly Tyr Asp
 290 295 300
 Leu Glu Ala Val Leu Ala Ala Met Gly Met Gly Asp Ala Phe Ser Glu
 305 310 315 320
 His Lys Ala Asp Tyr Ser Gly Met Ser Ser Gly Ser Gly Leu Tyr Ala
 325 330 335
 Gln Lys Phe Leu His Ser Ser Phe Val Ala Val Thr Glu Glu Gly Thr
 340 345 350
 Glu Ala Ala Ala Ala Thr Gly Ile Gly Phe Thr Val Thr Ser Ala Pro
 355 360 365
 Gly His Glu Asn Val His Cys Asn His Pro Phe Leu Phe Phe Ile Arg
 370 375 380
 His Asn Glu Ser Asn Ser Ile Leu Phe Phe Gly Arg Phe Ser Ser Pro
 385 390 395 400

<210> 11
 <211> 1238
 <212> DNA
 <213> Homo sapiens

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 gcatcttgac tgcaattggc atggtcctcc tggggaccccg aggagccacc gttcccgagt 180
 tggaggaggt gtttcactct gaaaaagaga cgaagagctc aagaataaag gctgaagaaa 240
 aagaggtgggt aagaataaag gctgaaggaa aagagattga gaacacagaa gcagtacatc 300
 aacaattcca aaagttttt actgaaataa gcaaactcac taatgattat gaactgaaca 360
 taacccaacag gctgtttgga gaaaaaacat acctcttcct tcaaaaatac ttagattatg 420
 ttgaaaaata ttatcatgca tctctggAAC ctgttgattt tgaaatgca gcccgtgaaa 480
 gtcgaaagaa gattaattcc tgggttggaa gcaaaacaaa tgaaaaatac aaggacttgt 540
 tcccagatgg ctctattagt agctctacca agctggtgct ggtgaacatg gtttattta 600

aaggcaatg ggacaggggg ttaagaaaag aaaatactaa ggaagagaaa ttttggatga 660
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 ggttgtacgc ccagaagttc ctgcacagt ccttggc agtaactgag gaaggcaccg 1080
 aggtgcagg tgccactggc ataggctta ctgtcacatc cggcccgatg catgaaaatg 1140
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<210> 12
 <211> 400
 <212> PRT
 <213> Homo sapiens

<400> 12
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 Gly Ile Leu Thr Ala Ile Gly Met Val Leu Leu Gly Thr Arg Gly Ala
 35 40 45
 Thr Ala Ser Gln Leu Glu Val Phe His Ser Glu Lys Glu Thr Lys
 50 55 60
 Ser Ser Arg Ile Lys Ala Glu Glu Lys Glu Val Val Arg Ile Lys Ala
 65 70 75 80
 Glu Gly Lys Glu Ile Glu Asn Thr Glu Ala Val His Gln Gln Phe Gln
 85 90 95
 Lys Phe Leu Thr Glu Ile Ser Lys Leu Thr Asn Asp Tyr Glu Leu Asn
 100 105 110
 Ile Thr Asn Arg Leu Phe Gly Glu Lys Thr Tyr Leu Phe Leu Gln Lys
 115 120 125
 Tyr Leu Asp Tyr Val Glu Lys Tyr Tyr His Ala Ser Leu Glu Pro Val
 130 135 140
 Asp Phe Val Asn Ala Ala Asp Glu Ser Arg Lys Lys Ile Asn Ser Trp
 145 150 155 160
 Val Glu Ser Lys Thr Asn Glu Lys Ile Lys Asp Leu Phe Pro Asp Gly
 165 170 175
 Ser Ile Ser Ser Ser Thr Lys Leu Val Leu Val Asn Met Val Tyr Phe
 180 185 190
 Lys Gly Gln Trp Asp Arg Gly Phe Lys Lys Glu Asn Thr Lys Glu Glu
 195 200 205

Lys Phe Trp Met Asn Lys Ser Thr Ser Lys Ser Val Gln Met Met Thr
 210 215 220
 Gln Ser His Ser Phe Ser Phe Thr Phe Leu Glu Asp Leu Gln Ala Lys
 225 230 235 240
 Ile Leu Gly Ile Pro Tyr Lys Asn Asn Asp Leu Ser Met Phe Val Leu
 245 250 255
 Leu Pro Asn Asp Ile Asp Gly Leu Glu Lys Ile Ile Asp Lys Ile Ser
 260 265 270
 Pro Glu Lys Leu Val Glu Trp Thr Ser Pro Gly His Met Glu Glu Arg
 275 280 285
 Lys Val Asn Leu His Leu Pro Arg Phe Glu Val Glu Asp Ser Tyr Asp
 290 295 300
 Leu Glu Ala Val Leu Ala Ala Met Gly Met Gly Asp Ala Phe Ser Glu
 305 310 315 320
 His Lys Ala Asp Tyr Ser Gly Met Ser Ser Gly Ser Gly Leu Tyr Ala
 325 330 335
 Gln Lys Phe Leu His Ser Ser Phe Val Ala Val Thr Glu Glu Gly Thr
 340 345 350
 Glu Ala Ala Ala Ala Thr Gly Ile Gly Phe Thr Val Thr Ser Ala Pro
 355 360 365
 Gly His Glu Asn Val His Cys Asn His Pro Phe Leu Phe Phe Ile Arg
 370 375 380
 His Asn Glu Ser Asn Ser Ile Leu Phe Phe Gly Arg Phe Ser Ser Pro
 385 390 395 400

<210> 13
 <211> 1559
 <212> DNA
 <213> Homo sapiens

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 ccggatgacg gaagactcca gtagattgtat ggatgtctcc cagcaagaga aggccaagag 180
 aggacgtgag aagcaggcag cagcgacctt tcaccaaag ggtggaaatc cctgtattcc 240
 ggatcgatgc aagaagagga atagaagcag aaaggattcc cctgacacag agtaattcaa 300
 atgttcagtt ttgattgtt ttcttgctat tctaggtctc gctaaaatca tcatggattc 360
 acttggcgcc gtcagcactc gacttgggtt tgatcttca aaagagctga agaaaacaaa 420
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 ggggacccga ggagccacccg ctccccagtt ggaggaggtg tttcactctg aaaaagagac 540
 gaagagctca agaataaaagg ctgaagaaaa agaggtggta agaataaaagg ctgaaggaaa 600

agagattgag aacacagaag cagtacatca acaattccaa aagttttga ctgaaataag 660
 caaactcaact aatgattatg aactgaacat aaccaacagg ctgtttggag aaaaaacata 720
 cctcttcctt caaaaatact tagattatgt tgaaaaatata tataatgcata ctctggaaacc 780
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<210> 14

<211> 400

<212> PRT

<213> Homo sapiens

<400> 14

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Lys Glu Leu Lys Lys Thr Asn Asp Gly Asn Ile Phe Phe Ser Pro Val
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Gly Ile Leu Thr Ala Ile Gly Met Val Leu Leu Gly Thr Arg Gly Ala
 35 40 45

Thr Ala Ser Gln Leu Glu Glu Val Phe His Ser Glu Lys Glu Thr Lys
 50 55 60

Ser Ser Arg Ile Lys Ala Glu Glu Lys Glu Val Val Arg Ile Lys Ala
 65 70 75 80

Glu Gly Lys Glu Ile Glu Asn Thr Glu Ala Val His Gln Gln Phe Gln
 85 90 95

Lys Phe Leu Thr Glu Ile Ser Lys Leu Thr Asn Asp Tyr Glu Leu Asn
 100 105 110

Ile Thr Asn Arg Leu Phe Gly Glu Lys Thr Tyr Leu Phe Leu Gln Lys
 115 120 125

Tyr Leu Asp Tyr Val Glu Lys Tyr Tyr His Ala Ser Leu Glu Pro Val
 130 135 140

Asp Phe Val Asn Ala Ala Asp Glu Ser Arg Lys Lys Ile Asn Ser Trp
 145 150 155 160

Val Glu Ser Lys Thr Asn Glu Lys Ile Lys Asp Leu Phe Pro Asp Gly
 165 170 175

Ser Ile Ser Ser Ser Thr Lys Leu Val Leu Val Asn Met Val Tyr Phe
 180 185 190
 Lys Gly Gln Trp Asp Arg Glu Phe Lys Lys Glu Asn Thr Lys Glu Glu
 195 200 205
 Lys Phe Trp Met Asn Lys Ser Thr Ser Lys Ser Val Gln Met Met Thr
 210 215 220
 Gln Ser His Ser Phe Ser Phe Thr Phe Leu Glu Asp Leu Gln Ala Lys
 225 230 235 240
 Ile Leu Gly Ile Pro Tyr Lys Asn Asn Asp Leu Ser Met Phe Val Leu
 245 250 255
 Leu Pro Asn Asp Ile Asp Gly Leu Glu Lys Ile Ile Asp Lys Ile Ser
 260 265 270
 Pro Glu Lys Leu Val Glu Trp Thr Ser Pro Gly His Met Glu Glu Arg
 275 280 285
 Lys Val Asn Leu His Leu Pro Arg Phe Glu Val Glu Asp Ser Tyr Asp
 290 295 300
 Leu Glu Ala Val Leu Ala Ala Met Gly Met Gly Asp Ala Phe Ser Glu
 305 310 315 320
 His Lys Ala Asp Tyr Ser Gly Met Ser Ser Gly Ser Gly Leu Tyr Ala
 325 330 335
 Gln Lys Phe Leu His Ser Ser Phe Val Ala Val Thr Glu Glu Gly Thr
 340 345 350
 Glu Ala Ala Ala Ala Thr Gly Ile Gly Phe Thr Val Thr Ser Ala Pro
 355 360 365
 Gly His Glu Asn Val His Cys Asn His Pro Phe Leu Phe Phe Ile Arg
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 His Asn Glu Ser Asn Ser Ile Leu Phe Phe Gly Arg Phe Ser Ser Pro
 385 390 395 400

<210> 15
 <211> 818
 <212> DNA
 <213> Homo sapiens

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 gccaccgctt cccagttgga ggaggtgttt cactctgaaa aagagacgaa gagctcaaga 240
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acagaaggcag tacatcaaca attccaaaag ttttgactg aaataagcaa actcactaat 360
gattatgaac tgaacataac caacaggctg tttggagaaa aaacataaccttcccaa 420
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35 40 45
Thr Ala Ser Gln Leu Glu Glu Val Phe His Ser Glu Lys Glu Thr Lys
50 55 60 65
Ser Ser Arg Ile Lys Ala Glu Glu Lys Glu Val Val Arg Ile Lys Ala
65 70 75 80
Glu Gly Lys Glu Ile Glu Asn Thr Glu Ala Val His Gln Gln Phe Gln
85 90 95
Lys Phe Leu Thr Glu Ile Ser Lys Leu Thr Asn Asp Tyr Glu Leu Asn
100 105 110
Ile Thr Asn Arg Leu Phe Gly Glu Lys Thr Tyr Leu Phe Leu Gln Lys
115 120 125
Tyr Leu Asp Tyr Val Glu Lys Tyr Tyr His Ala Ser Leu Glu Pro Val
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Asp Phe Val Asn Ala Ala Asp Glu Ser Arg Lys Lys Ile Asn Ser Trp
145 150 155 160
Val Glu Ser Lys Thr Asn Asp Val Glu Thr Glu Ala Gln Arg Val
165 170 175

<210> 17
<211> 5316
<212> DNA
<213> Homo sapiens

<400> 17

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 <212> PRT
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<400> 18
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 35 40 45

 Pro Thr Pro Phe Ile Ile Gly Val Asn Ala Ala Phe Gln Ala Glu Thr
 50 55 60

 Gln Glu Leu Leu Asp Val Ile Val Ala Asp Leu Asp Gly Gly Thr Val
 65 70 75 80

 Thr Ile Pro Glu Cys Val His Ile Pro Pro Leu Pro Glu Pro Leu Gln
 85 90 95

Ser Gln Thr His Ser Val Leu Ser Met Val Leu Asp Pro Glu Leu Glu
 100 105 110
 Leu Ala Asp Leu Ala Phe Pro Pro Pro Thr Thr Ser Thr Ser Ser Leu
 115 120 125
 Lys Met Gln Asp Lys Glu Leu Arg Ala Val Phe Leu Arg Leu Phe Ala
 130 135 140
 Gln Leu Leu Gln Gly Tyr Arg Trp Cys Leu His Val Val Arg Ile His
 145 150 155 160
 Pro Glu Pro Val Ile Arg Phe His Lys Ala Ala Phe Leu Gly Gln Arg
 165 170 175
 Gly Leu Val Glu Asp Asp Phe Leu Met Lys Val Leu Glu Gly Met Ala
 180 185 190
 Phe Ala Gly Phe Val Ser Glu Arg Gly Val Pro Tyr Arg Pro Thr Asp
 195 200 205
 Leu Phe Asp Glu Leu Val Ala His Glu Val Ala Arg Met Arg Ala Asp
 210 215 220
 Glu Asn His Pro Gln Arg Val Leu Arg His Val Gln Glu Leu Ala Glu
 225 230 235 240
 Gln Leu Tyr Lys Asn Glu Asn Pro Tyr Pro Ala Val Ala Met His Lys
 245 250 255
 Val Gln Arg Pro Gly Glu Ser Ser His Leu Arg Arg Val Pro Arg Pro
 260 265 270
 Phe Pro Arg Leu Asp Glu Gly Thr Val Gln Trp Ile Val Asp Gln Ala
 275 280 285
 Ala Ala Lys Met Gln Gly Ala Pro Pro Ala Val Lys Ala Glu Arg Arg
 290 295 300
 Thr Thr Val Pro Ser Gly Pro Pro Met Thr Ala Ile Leu Glu Arg Cys
 305 310 315 320
 Ser Gly Leu His Val Asn Ser Ala Arg Arg Leu Glu Val Val Arg Asn
 325 330 335
 Cys Ile Ser Tyr Val Phe Glu Gly Lys Met Leu Glu Ala Lys Lys Leu
 340 345 350
 Leu Pro Ala Val Leu Arg Ala Leu Lys Gly Arg Val Ala Arg Arg Cys
 355 360 365
 Leu Ala Gln Glu Leu His Leu His Val Gln Gln Asn Arg Ala Val Leu
 370 375 380
 Asp His Gln Gln Phe Asp Phe Val Val Arg Met Met Asn Cys Cys Leu
 385 390 395 400

Gln Asp Cys Thr Ser Leu Asp Glu His Gly Ile Ala Ala Ala Leu Leu
 405 410 415
 Pro Leu Val Thr Ala Phe Cys Arg Lys Leu Ser Pro Gly Val Thr Gln
 420 425 430
 Phe Ala Tyr Ser Cys Val Gln Glu His Val Val Trp Ser Thr Pro Gln
 435 440 445
 Phe Trp Glu Ala Met Phe Tyr Gly Asp Val Gln Thr His Ile Arg Ala
 450 455 460
 Leu Tyr Leu Glu Pro Thr Glu Asp Leu Ala Pro Ala Gln Glu Val Gly
 465 470 475 480
 Glu Ala Pro Ser Gln Glu Asp Glu Arg Ser Ala Leu Asp Val Ala Ser
 485 490 495
 Glu Gln Arg Arg Leu Trp Pro Thr Leu Ser Arg Glu Lys Gln Gln Glu
 500 505 510
 Leu Val Gln Lys Glu Glu Ser Thr Val Phe Ser Gln Ala Ile His Tyr
 515 520 525
 Ala Asn Arg Met Ser Tyr Leu Leu Leu Pro Leu Asp Ser Ser Lys Ser
 530 535 540
 Arg Leu Leu Arg Glu Arg Ala Gly Leu Gly Asp Leu Glu Ser Ala Ser
 545 550 555 560
 Asn Ser Leu Val Thr Asn Ser Met Ala Gly Ser Val Ala Glu Ser Tyr
 565 570 575
 Asp Thr Glu Ser Gly Phe Glu Asp Ala Glu Thr Cys Asp Val Ala Gly
 580 585 590
 Ala Val Val Arg Phe Ile Asn Arg Phe Val Asp Lys Val Cys Thr Glu
 595 600 605
 Ser Gly Val Thr Ser Asp His Leu Lys Gly Leu His Val Met Val Pro
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 Asp Ile Val Gln Met His Ile Glu Thr Leu Glu Ala Val Gln Arg Glu
 625 630 635 640
 Ser Arg Arg Leu Pro Pro Ile Gln Lys Pro Lys Leu Leu Arg Pro Arg
 645 650 655
 Leu Leu Pro Gly Glu Glu Cys Val Leu Asp Gly Leu Arg Val Tyr Leu
 660 665 670
 Leu Pro Asp Gly Arg Glu Glu Gly Ala Gly Gly Ser Ala Gly Gly Pro
 675 680 685
 Ala Leu Leu Pro Ala Glu Gly Ala Val Phe Leu Thr Thr Tyr Arg Val
 690 695 700

Ile Phe Thr Gly Met Pro Thr Asp Pro Leu Val Gly Glu Gln Val Val
 705 710 715 720
 Val Arg Ser Phe Pro Val Ala Ala Leu Thr Lys Glu Lys Arg Ile Ser
 725 730 735
 Val Gln Thr Pro Val Asp Gln Leu Leu Gln Asp Gly Leu Gln Leu Arg
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 Ser Cys Thr Phe Gln Leu Leu Lys Met Ala Phe Asp Glu Glu Val Gly
 755 760 765
 Ser Asp Ser Ala Glu Leu Phe Arg Lys Gln Leu His Lys Leu Arg Tyr
 770 775 780
 Pro Pro Asp Ile Arg Ala Thr Phe Ala Phe Thr Leu Gly Ser Ala His
 785 790 795 800
 Thr Pro Gly Arg Pro Pro Arg Val Thr Lys Asp Lys Gly Pro Ser Leu
 805 810 815
 Arg Thr Leu Ser Arg Asn Leu Val Lys Asn Ala Lys Lys Thr Ile Gly
 820 825 830
 Arg Gln His Val Thr Arg Lys Lys Tyr Asn Pro Pro Ser Trp Glu His
 835 840 845
 Arg Gly Gln Pro Pro Pro Glu Asp Gln Glu Asp Glu Ile Ser Val Ser
 850 855 860
 Glu Glu Leu Glu Pro Ser Thr Leu Thr Pro Ser Ser Ala Leu Lys Pro
 865 870 875 880
 Ser Asp Arg Met Thr Met Ser Ser Leu Val Glu Arg Ala Cys Cys Arg
 885 890 895
 Asp Tyr Gln Arg Leu Gly Leu Gly Thr Leu Ser Ser Ser Leu Ser Arg
 900 905 910
 Ala Lys Ser Glu Pro Phe Arg Ile Ser Pro Val Asn Arg Met Tyr Ala
 915 920 925
 Ile Cys Arg Ser Tyr Pro Gly Leu Leu Ile Val Pro Gln Ser Val Gln
 930 935 940
 Asp Asn Ala Leu Gln Arg Val Ser Arg Cys Tyr Arg Gln Asn Arg Phe
 945 950 955 960
 Pro Val Val Cys Trp Arg Ser Glu Arg Ser Lys Ala Val Leu Leu Arg
 965 970 975
 Ser Gly Gly Leu His Gly Lys Gly Val Val Gly Leu Phe Lys Ala Gln
 980 985 990
 Asn Ala Pro Ser Pro Gly Gln Ser Gln Ala Asp Ser Ser Ser Leu Glu
 995 1000 1005

Gln Glu Lys Tyr Leu Gln Ala Val Val Ser Ser Met Pro Arg Tyr Ala
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 Asp Ala Ser Gly Arg Asn Thr Leu Ser Gly Phe Ser Ser Ala His Met
 1025 1030 1035 1040
 Gly Ser His Val Pro Ser Pro Arg Ala Arg Val Thr Thr Leu Ser Asn
 1045 1050 1055
 Pro Met Ala Ala Ser Ala Ser Arg Arg Thr Ala Pro Arg Gly Lys Trp
 1060 1065 1070
 Gly Ser Val Arg Thr Ser Gly Arg Ser Ser Gly Leu Gly Thr Asp Val
 1075 1080 1085
 Gly Ser Arg Leu Ala Gly Arg Asp Ala Leu Ala Pro Pro Gln Ala Asn
 1090 1095 1100
 Gly Gly Pro Pro Asp Pro Gly Phe Leu Arg Pro Gln Arg Ala Ala Leu
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 1155 1160 1165
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 1170 1175 1180
 Ser Glu Trp Leu Ile Gln Ile His Lys Leu Leu Gln Val Ser Val Leu
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 Val Val Glu Leu Leu Asp Ser Gly Ser Ser Val Leu Val Gly Leu Glu
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 Asp Gly Trp Asp Ile Thr Thr Gln Val Val Ser Leu Val Gln Leu Leu
 1220 1225 1230
 Ser Asp Pro Phe Tyr Arg Thr Leu Glu Gly Phe Arg Leu Leu Val Glu
 1235 1240 1245
 Lys Glu Trp Leu Ser Phe Gly His Arg Phe Ser His Arg Gly Ala His
 1250 1255 1260
 Thr Leu Ala Gly Gln Ser Ser Gly Phe Thr Pro Val Phe Leu Gln Phe
 1265 1270 1275 1280
 Leu Asp Cys Val His Gln Val His Leu Gln Phe Pro Met Glu Phe Glu
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 Phe Ser Gln Phe Tyr Leu Lys Phe Leu Gly Tyr His His Val Ser Arg
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Arg Phe Arg Thr Phe Leu Leu Asp Ser Asp Tyr Glu Arg Ile Glu Leu
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 Gly Leu Leu Tyr Glu Glu Lys Gly Glu Arg Arg Gly Gln Val Pro Cys
 1330 1335 1340
 Arg Ser Val Trp Glu Tyr Val Asp Arg Leu Ser Lys Arg Thr Pro Val
 1345 1350 1355 1360
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 1380 1385 1390
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 1445 1450 1455
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 1460 1465 1470
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 1475 1480 1485
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 1490 1495 1500
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 Arg Arg Ser Thr Ser Thr Leu Tyr Ser Gln Phe Gln Thr Ala Glu Ser
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 Glu Asn Arg Ser Tyr Glu Gly Thr Leu Tyr Lys Lys Gly Ala Phe Met
 1555 1560 1565
 Lys Pro Trp Lys Ala Arg Trp Phe Val Leu Asp Lys Thr Lys His Gln
 1570 1575 1580
 Leu Arg Tyr Tyr Asp His Arg Val Asp Thr Glu Cys Lys Gly Val Ile
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Ala Pro Lys Thr Val Asp Glu Lys Ala Phe Phe Asp Val Lys Thr Thr
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 1650 1655 1660
 Pro Ala Arg Leu Leu Cys Ser Arg Tyr Arg Pro Leu Gly Val Ala Gly
 1665 1670 1675 1680
 Pro Pro Arg Pro Cys Leu Gln Pro Arg Pro Ser Thr Val Leu Ser Pro
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<210> 20
 <211> 1681
 <212> PRT
 <213> Homo sapiens

<400> 20
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Ala Trp Val Gly Ala Gln Gly Pro Leu Gln Ala Ser Leu Leu Pro Leu
 20 25 30

Gly Ile Thr Asn Val Leu Ser Leu Phe Cys Ala Ala Leu Thr Glu His
 35 40 45

Lys Val Leu Phe Leu Ser Arg Ser Tyr Gln Arg Leu Ala Asp Ala Cys
 50 55 60

Arg Gly Leu Leu Ala Leu Leu Phe Pro Leu Arg Tyr Ser Phe Thr Tyr
 65 70 75 80

Val Pro Ile Leu Pro Ala Gln Leu Leu Glu Val Leu Ser Thr Pro Thr
 85 90 95

Pro Phe Ile Ile Gly Val Asn Ala Ala Phe Gln Ala Glu Thr Gln Glu
 100 105 110

Leu Leu Asp Val Ile Val Ala Asp Leu Asp Gly Gly Thr Val Thr Ile
 115 120 125

Pro Glu Cys Val His Ile Pro Pro Leu Pro Glu Pro Leu Gln Ser Gln
 130 135 140

Thr His Ser Val Leu Ser Met Val Leu Asp Pro Glu Leu Glu Leu Ala
 145 150 155 160

Asp Leu Ala Phe Pro Pro Pro Thr Thr Ser Thr Ser Ser Leu Lys Met
 165 170 175

Gln Asp Lys Glu Leu Arg Ala Val Phe Leu Arg Leu Phe Ala Gln Leu
 180 185 190

Leu Gln Gly Tyr Arg Trp Cys Leu His Val Val Arg Ile His Pro Glu
 195 200 205

Pro Val Ile Arg Phe His Lys Ala Ala Phe Leu Gly Gln Arg Gly Leu
 210 215 220
 Val Glu Asp Asp Phe Leu Met Lys Val Leu Glu Gly Met Ala Phe Ala
 225 230 235 240
 Gly Phe Val Ser Glu Arg Gly Val Pro Tyr Arg Pro Thr Asp Leu Phe
 245 250 255
 Asp Glu Leu Val Ala His Glu Val Ala Arg Met Arg Ala Asp Glu Asn
 260 265 270
 His Pro Gln Arg Val Leu Arg His Val Gln Glu Leu Ala Glu Gln Leu
 275 280 285
 Tyr Lys Asn Glu Asn Pro Tyr Pro Ala Val Ala Met His Lys Val Gln
 290 295 300
 Arg Pro Gly Glu Ser Ser His Leu Arg Arg Val Pro Arg Pro Phe Pro
 305 310 315 320
 Arg Leu Asp Glu Gly Thr Val Gln Trp Ile Val Asp Gln Ala Ala Ala
 325 330 335
 Lys Met Gln Gly Ala Pro Pro Ala Val Lys Ala Glu Arg Arg Thr Thr
 340 345 350
 Val Pro Ser Gly Pro Pro Met Thr Ala Ile Leu Glu Arg Cys Ser Gly
 355 360 365
 Leu His Val Asn Ser Ala Arg Arg Leu Glu Val Val Arg Asn Cys Ile
 370 375 380
 Ser Tyr Val Phe Glu Gly Lys Met Leu Glu Ala Lys Lys Leu Leu Pro
 385 390 395 400
 Ala Val Leu Arg Ala Leu Lys Gly Arg Ala Ala Arg Arg Cys Leu Ala
 405 410 415
 Gln Glu Leu His Leu His Val Gln Gln Asn Arg Ala Val Leu Asp His
 420 425 430
 Gln Gln Phe Asp Phe Val Val Arg Met Met Asn Cys Cys Leu Gln Asp
 435 440 445
 Cys Thr Ser Leu Asp Glu His Gly Ile Ala Ala Ala Leu Leu Pro Leu
 450 455 460
 Val Thr Ala Phe Cys Arg Lys Leu Ser Pro Gly Val Thr Gln Phe Ala
 465 470 475 480
 Tyr Ser Cys Val Gln Glu His Val Val Trp Ser Thr Pro Gln Phe Trp
 485 490 495
 Glu Ala Met Phe Tyr Gly Asp Val Gln Thr His Ile Arg Ala Leu Tyr
 500 505 510

Leu Glu Pro Thr Glu Asp Leu Ala Pro Ala Gln Glu Val Gly Glu Ala
 515 520 525
 Pro Ser Gln Glu Asp Glu Arg Ser Ala Leu Asp Val Ala Ser Glu Gln
 530 535 540
 Arg Arg Leu Trp Pro Thr Leu Ser Arg Glu Lys Gln Gln Glu Leu Val
 545 550 555 560
 Gln Lys Glu Glu Ser Thr Val Phe Ser Gln Ala Ile His Tyr Ala Asn
 565 570 575
 Arg Met Ser Tyr Leu Leu Leu Pro Leu Asp Ser Ser Lys Ser Arg Leu
 580 585 590
 Leu Arg Glu Arg Ala Gly Leu Gly Asp Leu Glu Ser Ala Ser Asn Ser
 595 600 605
 Leu Val Thr Asn Ser Met Ala Gly Ser Val Ala Glu Ser Tyr Asp Thr
 610 615 620
 Glu Ser Gly Phe Glu Asp Ala Glu Thr Cys Asp Val Ala Gly Ala Val
 625 630 635 640
 Val Arg Phe Ile Asn Arg Phe Val Asp Lys Val Cys Thr Glu Ser Gly
 645 650 655
 Val Thr Ser Asp His Leu Lys Gly Leu His Val Met Val Pro Asp Ile
 660 665 670
 Val Gln Met His Ile Glu Thr Leu Glu Ala Val Gln Arg Glu Ser Arg
 675 680 685
 Arg Leu Pro Pro Ile Gln Lys Pro Lys Leu Leu Arg Pro Arg Leu Leu
 690 695 700
 Pro Gly Glu Glu Cys Val Leu Asp Gly Leu Arg Val Tyr Leu Leu Pro
 705 710 715 720
 Asp Gly Arg Glu Glu Gly Ala Gly Gly Ser Ala Gly Gly Pro Ala Leu
 725 730 735
 Leu Pro Ala Glu Gly Ala Val Phe Leu Thr Thr Tyr Arg Val Ile Phe
 740 745 750
 Thr Gly Met Pro Thr Asp Pro Leu Val Gly Glu Gln Val Val Val Arg
 755 760 765
 Ser Phe Pro Val Ala Ala Leu Thr Lys Glu Lys Arg Ile Ser Val Gln
 770 775 780
 Thr Pro Val Asp Gln Leu Leu Gln Asp Gly Leu Gln Leu Arg Ser Cys
 785 790 795 800
 Thr Phe Gln Leu Leu Lys Met Ala Phe Asp Glu Glu Val Gly Ser Asp
 805 810 815

Ser Ala Glu Leu Phe Arg Lys Gln Leu His Lys Leu Arg Tyr Pro Pro
 820 825 830
 Asp Ile Arg Ala Thr Phe Ala Phe Thr Leu Gly Ser Ala His Thr Pro
 835 840 845
 Gly Arg Pro Pro Arg Val Thr Lys Asp Lys Gly Pro Ser Leu Arg Thr
 850 855 860
 Leu Ser Arg Asn Leu Val Lys Asn Ala Lys Lys Thr Ile Gly Arg Gln
 865 870 875 880
 His Val Thr Arg Lys Lys Tyr Asn Pro Pro Ser Trp Glu His Arg Gly
 885 890 895
 Gln Pro Pro Pro Glu Asp Gln Glu Asp Glu Ile Ser Val Ser Glu Glu
 900 905 910
 Leu Glu Pro Ser Thr Leu Thr Pro Ser Ser Ala Leu Lys Pro Ser Asp
 915 920 925
 Arg Met Thr Met Ser Ser Leu Val Glu Arg Ala Cys Cys Arg Asp Tyr
 930 935 940
 Gln Arg Leu Gly Leu Gly Thr Leu Ser Ser Ser Leu Ser Arg Ala Lys
 945 950 955 960
 Ser Glu Pro Phe Arg Ile Ser Pro Val Asn Arg Met Tyr Ala Ile Cys
 965 970 975
 Arg Ser Tyr Pro Gly Leu Leu Ile Val Pro Gln Ser Val Gln Asp Asn
 980 985 990
 Ala Leu Gln Arg Val Ser Arg Cys Tyr Arg Gln Asn Arg Phe Pro Val
 995 1000 1005
 Val Cys Trp Arg Ser Gly Arg Ser Lys Ala Val Leu Leu Arg Ser Gly
 1010 1015 1020
 Gly Leu His Gly Lys Gly Val Val Gly Leu Phe Lys Ala Gln Asn Ala
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 Pro Ser Pro Gly Gln Ser Gln Ala Asp Ser Ser Leu Glu Gln Glu
 1045 1050 1055
 Lys Tyr Leu Gln Ala Val Val Ser Ser Met Pro Arg Tyr Ala Asp Ala
 1060 1065 1070
 Ser Gly Arg Asn Thr Leu Ser Gly Phe Ser Ser Ala His Met Gly Ser
 1075 1080 1085
 His Gly Lys Trp Gly Ser Val Arg Thr Ser Gly Arg Ser Ser Gly Leu
 1090 1095 1100
 Gly Thr Asp Val Gly Ser Arg Leu Ala Gly Arg Asp Ala Leu Ala Pro
 1105 1110 1115 1120

Pro Gln Ala Asn Gly Gly Pro Pro Asp Pro Gly Phe Leu Arg Pro Gln
 1125 1130 1135
 Arg Ala Ala Leu Tyr Ile Leu Gly Asp Lys Ala Gln Leu Lys Gly Val
 1140 1145 1150
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 Glu Ala Arg Gln Val Lys Ala Ser Phe Lys Lys Leu Leu Lys Ala Cys
 1170 1175 1180
 Val Pro Gly Cys Pro Ala Ala Glu Pro Ser Pro Ala Ser Phe Leu Arg
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 Ser Leu Glu Asp Ser Glu Trp Leu Ile Gln Ile His Lys Leu Leu Gln
 1205 1210 1215
 Val Ser Val Leu Val Val Glu Leu Leu Asp Ser Gly Ser Ser Val Leu
 1220 1225 1230
 Val Gly Leu Glu Asp Gly Trp Asp Ile Thr Thr Gln Val Val Ser Leu
 1235 1240 1245
 Val Gln Leu Leu Ser Asp Pro Phe Tyr Arg Thr Leu Glu Gly Phe Arg
 1250 1255 1260
 Leu Leu Val Glu Lys Glu Trp Leu Ser Phe Gly His Arg Phe Ser His
 1265 1270 1275 1280
 Arg Gly Ala His Thr Leu Ala Gly Gln Ser Ser Gly Phe Thr Pro Val
 1285 1290 1295
 Phe Leu Gln Phe Leu Asp Cys Val His Gln Val His Leu Gln Phe Pro
 1300 1305 1310
 Met Glu Phe Glu Phe Ser Gln Phe Tyr Leu Lys Phe Leu Gly Tyr His
 1315 1320 1325
 His Val Ser Arg Arg Phe Arg Thr Phe Leu Leu Asp Ser Asp Tyr Glu
 1330 1335 1340
 Arg Ile Glu Leu Gly Leu Leu Tyr Glu Glu Lys Gly Glu Arg Arg Gly
 1345 1350 1355 1360
 Gln Val Pro Cys Arg Ser Val Trp Glu Tyr Val Asp Arg Leu Ser Lys
 1365 1370 1375
 Arg Thr Pro Val Phe His Asn Tyr Met Tyr Ala Pro Glu Asp Ala Glu
 1380 1385 1390
 Val Leu Arg Pro Tyr Ser Asn Val Ser Asn Leu Lys Val Trp Asp Phe
 1395 1400 1405
 Tyr Thr Glu Glu Thr Leu Ala Glu Gly Pro Pro Tyr Asp Trp Glu Leu
 1410 1415 1420

Ala Gln Gly Pro Pro Glu Pro Pro Glu Glu Arg Ser Asp Gly Gly
 1425 1430 1435 1440
 Ala Pro Gln Ser Arg Arg Arg Val Val Trp Pro Cys Tyr Asp Ser Cys
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 Arg Leu Glu Thr Glu Leu Gly Gln Pro Ala Glu Arg Trp Lys Asp Thr
 1475 1480 1485
 Trp Asp Arg Val Lys Ala Ala Gln Arg Leu Glu Gly Arg Pro Asp Gly
 1490 1495 1500
 Arg Gly Thr Pro Ser Ser Leu Leu Val Ser Thr Ala Pro His His Arg
 1505 1510 1515 1520
 Arg Ser Leu Gly Val Tyr Leu Gln Glu Gly Pro Val Gly Ser Thr Leu
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 Ser Leu Ser Leu Asp Ser Asp Gln Ser Ser Gly Ser Thr Thr Ser Gly
 1540 1545 1550
 Ser Arg Gln Ala Ala Arg Arg Ser Thr Ser Thr Leu Tyr Ser Gln Phe
 1555 1560 1565
 Gln Thr Ala Glu Ser Glu Asn Arg Ser Tyr Glu Gly Thr Leu Tyr Lys
 1570 1575 1580
 Lys Gly Ala Phe Met Lys Pro Trp Lys Ala Arg Trp Phe Val Leu Asp
 1585 1590 1595 1600
 Lys Thr Lys His Gln Leu Arg Tyr Tyr Asp His Arg Val Asp Thr Glu
 1605 1610 1615
 Cys Lys Gly Val Ile Asp Leu Ala Glu Val Glu Ala Val Ala Pro Gly
 1620 1625 1630
 Thr Pro Thr Met Gly Ala Pro Lys Thr Val Asp Glu Lys Ala Phe Phe
 1635 1640 1645
 Asp Val Lys Thr Thr Arg Arg Val Tyr Asn Phe Cys Ala Gln Asp Val
 1650 1655 1660
 Pro Ser Ala Gln Gln Trp Val Asp Arg Ile Gln Ser Cys Leu Ser Asp
 1665 1670 1675 1680
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<210> 21
 <211> 762
 <212> DNA
 <213> Homo sapiens

<400> 21

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agggttgttt caaagagatt ctgcatagaa tcagaaacaa tgcagtcact gtgggtgtg 660
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<210> 22

<211> 241

<212> PRT

<213> Homo sapiens

<400> 22

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Leu Ile Phe Leu Cys Gly Ala Ala Leu Leu Ala Val Gly Ile Trp Val
20 25 30

Thr Val Asp Gly Thr Ser Phe Leu Lys Val Phe Gly Ser Leu Ser Ser
35 40 45

Ser Ala Met Gln Phe Val Asn Val Gly Tyr Phe Leu Ile Ala Ala Gly
50 55 60

Ala Val Leu Phe Ile Phe Gly Phe Leu Gly Cys Tyr Gly Ala Pro Ser
65 70 75 80

Glu Lys Gln Val Cys Ala Leu Val Met Phe Phe Ser Ile Leu Leu Ile
85 90 95

Ile Phe Ile Ala Glu Ile Ala Gly Ala Val Val Ala Leu Val Tyr Thr
100 105 110

Thr Leu Ala Glu Gln Phe Leu Thr Leu Leu Val Val Pro Ala Ile Glu
115 120 125

Lys Asp Tyr Gly Tyr Gln Thr Asp Phe Thr Gln Val Trp Asn Thr Thr
130 135 140

Met Glu Glu Leu His Cys Cys Gly Phe Asn Asn Tyr Thr Asp Phe Asn
145 150 155 160

Ala Ser Arg Phe Val Lys Glu Asn Lys Val Phe Pro Pro Pro Cys Cys
165 170 175

Ala Asn Pro Gly Asn His Thr Val Glu Pro Cys Thr Glu Glu Lys Ala

180	185	190
Lys Ser Met Lys Val Gln Gly Cys Phe Lys Glu Ile Leu His Arg Ile		
195	200	205
Arg Asn Asn Ala Val Thr Val Gly Gly Val Ala Val Gly Val Ala Ala		
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Leu Glu Leu Ala Ala Met Val Val Ser Met Tyr Leu Tyr Cys Asn Leu		
225	230	235
240		

Lys

<210> 23
 <211> 469
 <212> DNA
 <213> Homo sapiens

<400> 23
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 aaccagatgg tgccatctct gatggcaaaa gcttcactat aaaaacccaag agcactctga 180
 aaacaacacg gttttcttct aaacttggag agaagtatga aagaactaca ggtgatggca 240
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 gcattatgaa caatgtcacc tgtactcaga tctgtgaaaa taaaaaaaaagc agaataaaaa 420
 tttccttact gctttggaga gcaattagct gagagaagga acaatttca 469

<210> 24
 <211> 145
 <212> PRT
 <213> Homo sapiens

<400> 24
 Met Val Thr Thr Gln Gln Leu Leu Gly Arg Trp Arg Pro Ala Glu Arg
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Lys Tyr Leu Lys Glu Thr Gly Met Arg Met Ala Leu Gln Lys Ile Gly
 20 25 30

Ala Met Thr Lys Pro Asp Gly Ala Ile Ser Asp Gly Lys Ser Phe Thr
 35 40 45

Ile Lys Thr Lys Ser Thr Leu Lys Thr Thr Arg Phe Ser Ser Lys Leu
 50 55 60

Gly Glu Lys Tyr Glu Arg Thr Thr Gly Asp Gly Arg Lys Asn Ser Leu
 65 70 75 80

Phe Val Cys Asn Phe Thr Lys Arg Ala Leu Val Gln His Trp Glu Trp
 85 90 95

Asp Glu Glu Arg Lys Thr Arg Arg Lys Val Gly Asp Lys Lys Ala
 100 105 110

Gly Met Glu Cys Ile Met Asn Asn Val Thr Cys Thr Gln Ile Cys Glu
115 120 125

Asn Lys Lys Ser Arg Ile Lys Ile Ser Leu Leu Leu Trp Arg Ala Ile
130 135 140

Ser
145

<210> 25
<211> 816
<212> DNA
<213> Homo sapiens

<400> 25
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ctccagggtcc aaggtgaatg cccgacgtcc agtgttatta ggtataaaagg tgcctggga 180
acaatcaccg ctgtggtaaa aacagaaggg cgatgaaac tctacagcgg gctgcctgcg 240
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gagttcctca ccgcaggaa agaaacagca cctagtttag gaagcaagat tttagctgg 360
ctaacgactg gaggagtggc agtattcatt gggcaaccca cagaggtcgt gaaagtca 420
cttcaagcac agagccatct ccacggaatc aaacctcgct acacggggac ttataatgcg 480
tacagaataa tagcaacaac cgaaggcttg acgggtctt gaaaaggggac tactccaat 540
ctgatgagaa gtgtcatcat caattgtaca gagctagtaa catatgatct aatgaaggag 600
gccttgtga aaaacaacat attagcagga cagtacaaaa gtgtgccccaa ctgtgcaatg 660
aaagtgttca ctaacgaagg accaacggct ttcttcaagg gtttggtacc ttccttctt 720
cgacttggat cctggaacgt cattatgttt gtgtgcttt aacaactgaa acgagaactg 780
tcaaagtcaa ggcagactat ggactgtgcc acataa 816

<210> 26
<211> 271
<212> PRT
<213> Homo sapiens

<400> 26
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Leu Phe Ser Ala Gly Ile Ala Ala Cys Leu Ala Asp Val Ile Thr Phe
20 25 30

Pro Leu Asp Thr Ala Lys Val Arg Leu Gln Val Gln Gly Glu Cys Pro
35 40 45

Thr Ser Ser Val Ile Arg Tyr Lys Gly Val Leu Gly Thr Ile Thr Ala
50 55 60

Val Val Lys Thr Glu Gly Arg Met Lys Leu Tyr Ser Gly Leu Pro Ala
65 70 75 80

Gly Leu Gln Arg Gln Ile Ser Ser Ala Ser Leu Arg Ile Gly Leu Tyr
85 90 95

Asp Thr Val Gln Glu Phe Leu Thr Ala Gly Lys Glu Thr Ala Pro Ser
100 105 110

Leu Gly Ser Lys Ile Leu Ala Gly Leu Thr Thr Gly Gly Val Ala Val
115 120 125

Phe Ile Gly Gln Pro Thr Glu Val Val Lys Val Arg Leu Gln Ala Gln
130 135 140

Ser His Leu His Gly Ile Lys Pro Arg Tyr Thr Gly Thr Tyr Asn Ala
145 150 155 160

Tyr Arg Ile Ile Ala Thr Thr Glu Gly Leu Thr Gly Leu Trp Lys Gly
165 170 175

Thr Thr Pro Asn Leu Met Arg Ser Val Ile Ile Asn Cys Thr Glu Leu
180 185 190

Val Thr Tyr Asp Leu Met Lys Glu Ala Phe Val Lys Asn Asn Ile Leu
195 200 205

Ala Gly Gln Tyr Lys Ser Val Pro Asn Cys Ala Met Lys Val Phe Thr
210 215 220

Asn Glu Gly Pro Thr Ala Phe Phe Lys Gly Leu Val Pro Ser Phe Leu
225 230 235 240

Arg Leu Gly Ser Trp Asn Val Ile Met Phe Val Cys Phe Glu Gln Leu
245 250 255

Lys Arg Glu Leu Ser Lys Ser Arg Gln Thr Met Asp Cys Ala Thr
260 265 270

<210> 27

<211> 1859

<212> DNA

<213> Homo sapiens

<400> 27

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<210> 28

<211> 553

<212> PRT

<213> Homo sapiens

<400> 28

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 20 25 30

Thr Glu Gly Arg Gln Pro Pro Lys Gly Lys Cys Pro Leu Arg Cys Ser
 35 40 45

Cys Ser Lys Asp Ser Ala Leu Cys Glu Gly Ser Pro Asp Leu Pro Val
 50 55 60

Ser Phe Ser Pro Thr Leu Leu Ser Leu Ser Leu Val Arg Thr Gly Val
 65 70 75 80

Thr Gln Leu Lys Ala Gly Ser Phe Leu Arg Ile Pro Ser Leu His Leu
 85 90 95

Leu Leu Phe Thr Ser Asn Ser Phe Ser Val Ile Glu Asp Asp Ala Phe
 100 105 110

Ala Gly Leu Ser His Leu Gln Tyr Leu Phe Ile Glu Asp Asn Glu Ile
 115 120 125

Gly Ser Ile Ser Lys Asn Ala Leu Arg Gly Leu Arg Ser Leu Thr His
 130 135 140

Leu Ser Leu Ala Asn Asn His Leu Glu Thr Leu Pro Arg Phe Leu Phe
 145 150 155 160

Arg Gly Leu Asp Thr Leu Thr His Val Asp Leu Arg Gly Asn Pro Phe
 165 170 175

Gln Cys Asp Cys Arg Val Leu Trp Leu Leu Gln Trp Met Pro Thr Val
 180 185 190

Asn Ala Ser Val Gly Thr Gly Ala Cys Ala Gly Pro Ala Ser Leu Ser
 195 200 205
 His Met Gln Leu His His Leu Asp Pro Lys Thr Phe Lys Cys Arg Ala
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 Ile Glu Leu Ser Trp Phe Gln Thr Val Gly Glu Ser Ala Leu Ser Val
 225 230 235 240
 Glu Pro Phe Ser Tyr Gln Gly Glu Pro His Ile Val Leu Ala Gln Pro
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 Phe Ala Gly Arg Cys Leu Ile Leu Ser Trp Asp Tyr Ser Leu Gln Arg
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 Phe Arg Pro Glu Glu Leu Pro Ala Ala Ser Val Val Ser Cys Lys
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 Pro Leu Val Leu Gly Pro Ser Leu Phe Val Leu Ala Ala Arg Leu Trp
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 Gly Gly Ser Gln Leu Trp Ala Arg Pro Ser Pro Gly Leu Arg Leu Ala
 305 310 315 320
 Pro Thr Gln Thr Leu Ala Pro Arg Arg Leu Leu Arg Pro Asn Asp Ala
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 Glu Leu Leu Trp Leu Glu Gly Gln Pro Cys Phe Val Val Ala Asp Ala
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 Ser Lys Ala Gly Ser Thr Thr Leu Leu Cys Arg Asp Gly Pro Gly Phe
 355 360 365
 Tyr Pro His Gln Ser Leu His Ala Trp His Arg Asp Thr Asp Ala Glu
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 Ala Leu Glu Leu Asp Gly Arg Pro His Leu Leu Leu Ala Ser Ala Ser
 385 390 395 400
 Gln Arg Pro Val Leu Phe His Trp Thr Gly Gly Arg Phe Glu Arg Arg
 405 410 415
 Thr Asp Ile Pro Arg Ala Glu Asp Val Tyr Ala Thr Arg His Phe Gln
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 Ala Gly Gly Asp Val Phe Leu Cys Leu Thr Arg Tyr Ile Gly Asp Ser
 435 440 445
 Met Val Met Arg Trp Asp Gly Ser Met Phe Arg Leu Leu Gln Gln Leu
 450 455 460
 Pro Ser Arg Gly Ala His Val Phe Gln Pro Leu Leu Ile Ala Arg Asp
 465 470 475 480
 Gln Leu Ala Ile Leu Gly Ser Asp Phe Ala Phe Ser Gln Val Leu Arg
 485 490 495

Leu Glu Pro Asp Lys Gly Leu Leu Glu Pro Leu Gln Glu Leu Gly Pro
500 505 510

Pro Ala Leu Val Ala Pro Arg Ala Phe Ala His Ile Thr Met Ala Gly
515 520 525

Arg Arg Phe Leu Phe Ala Ala Cys Phe Lys Gly Pro Thr Gln Ile Tyr
530 535 540

Gln His His Glu Ile Asp Leu Ser Ala
545 550

<210> 29
<211> 1482
<212> DNA
<213> Homo sapiens

<400> 29
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<210> 30
<211> 493
<212> PRT
<213> Homo sapiens

<400> 30
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Leu Cys Leu Phe Ser Ser Leu Phe Leu Leu Glu Ile Gly Arg Pro Pro

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Cys	Glu	Gly	Ser	Pro	Asp	Leu	Pro	Val	Ser	Phe	Ser	Pro	Thr	Leu	Leu
50							55					60			
Ser	Leu	Thr	Ala	His	Ile	Pro	Ser	Ser	Leu	Val	Arg	Thr	Gly	Val	Thr
65							70				75				80
Gln	Leu	Lys	Ala	Gly	Ser	Phe	Leu	Arg	Ile	Pro	Ser	Leu	His	Leu	Leu
							85				90				95
Leu	Phe	Thr	Ser	Asn	Ser	Phe	Ser	Val	Ile	Glu	Asp	Asp	Ala	Phe	Ala
							100				105				110
Gly	Leu	Ser	His	Leu	Gln	Tyr	Leu	Phe	Ile	Glu	Asp	Asn	Glu	Ile	Gly
							115				120				125
Ser	Ile	Ser	Lys	Asn	Ala	Leu	Arg	Gly	Leu	Arg	Ser	Leu	Thr	His	Leu
							130				135				140
Ser	Leu	Ala	Asn	Asn	His	Leu	Glu	Thr	Leu	Pro	Arg	Phe	Leu	Phe	Arg
							145				155				160
Gly	Leu	Asp	Thr	Leu	Thr	His	Val	Asp	Leu	Arg	Gly	Asn	Pro	Phe	Gln
							165				170				175
Cys	Asp	Cys	Arg	Val	Leu	Trp	Leu	Leu	Gln	Trp	Met	Pro	Thr	Val	Asn
							180				185				190
Ala	Ser	Val	Gly	Thr	Gly	Ala	Cys	Ala	Gly	Pro	Ala	Ser	Leu	Ser	His
							195				200				205
Met	Gln	Leu	His	His	Leu	Asp	Pro	Lys	Thr	Phe	Lys	Cys	Thr	Ala	Ala
							210				215				220
Ser	Val	Val	Ser	Cys	Lys	Pro	Leu	Val	Leu	Gly	Pro	Ser	Leu	Phe	Val
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Leu	Ala	Ala	Arg	Leu	Trp	Gly	Gly	Ser	Gln	Leu	Trp	Ala	Arg	Pro	Ser
							245				250				255
Pro	Gly	Leu	Arg	Leu	Ala	Pro	Thr	Gln	Thr	Leu	Ala	Pro	Arg	Arg	Leu
							260				265				270
Leu	Arg	Pro	Asn	Asp	Ala	Glu	Leu	Leu	Trp	Leu	Glu	Gly	Gln	Pro	Cys
							275				280				285
Phe	Val	Val	Ala	Asp	Ala	Ser	Lys	Ala	Gly	Ser	Thr	Thr	Cys	Ser	Ala
							290				295				300
Ser	Gly	Pro	Arg	Lys	Ser	Cys	Pro	Ser	Leu	His	Ala	Trp	His	Arg	Asp
							305				310				320
Thr	Asp	Ala	Glu	Ala	Leu	Glu	Leu	Asp	Gly	Arg	Pro	His	Leu	Leu	

325	330	335
Ala Ser Ala Ser Gln Arg Pro Val Leu Phe His Trp Thr Gly Gly Arg		
340	345	350
Phe Glu Arg Arg Thr Asp Ile Pro Glu Ala Glu Asp Val Tyr Ala Thr		
355	360	365
Arg His Phe Gln Ala Gly Gly Asp Val Phe Leu Cys Leu Thr Arg Tyr		
370	375	380
Ile Gly Asp Ser Met Val Met Arg Trp Asp Gly Ser Met Phe Arg Leu		
385	390	395
Leu Gln Gln Leu Pro Ser Arg Gly Ala His Val Phe Gln Pro Leu Leu		
405	410	415
Ile Ala Arg Asp Gln Leu Ala Ile Leu Gly Ser Asp Phe Ala Phe Ser		
420	425	430
Gln Val Leu Arg Leu Glu Pro Asp Lys Gly Leu Leu Glu Pro Leu Gln		
435	440	445
Glu Leu Gly Pro Leu Ala Leu Val Ala Pro Arg Ala Phe Ala His Ile		
450	455	460
Thr Met Ala Gly Arg Arg Phe Leu Phe Ala Ala Cys Phe Lys Gly Pro		
465	470	475
Thr Gln Ile Tyr Gln His His Glu Ile Asp Leu Ser Ala		
485	490	

<210> 31
 <211> 430
 <212> DNA
 <213> Homo sapiens

<400> 31
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 ggagaaaaagt ttcagaagca aacggatcgt gcaagtggag caataacttc atccgcagct 180
 ccacagaagt gatgcgcagg gtccacaggg ccccccagctg caagtttgcataatcctg 240
 gcataagctg ctgtgagagc ctagaactgg aaaatacagt gtgccagttc actacaggca 300
 aacaattccc caggtccaa taccatagtg ttacctcatt agagaagata ttgacagtgc 360
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 gctttaggac 430

<210> 32
 <211> 129
 <212> PRT
 <213> Homo sapiens

<400> 32
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Lys Gly Asn Ser Ser Gly Asn Asp Lys Glu Cys Cys Asn Asp Met Thr
20 25 30

Val Trp Arg Lys Val Ser Glu Ala Asn Gly Ser Cys Lys Trp Ser Asn
35 40 45

Asn Phe Ile Arg Ser Ser Thr Glu Val Met Arg Arg Val His Arg Ala
50 55 60

Pro Ser Cys Lys Phe Val Gln Asn Pro Gly Ile Ser Cys Cys Glu Ser
65 70 75 80

Leu Glu Leu Glu Asn Thr Val Cys Gln Phe Thr Thr Gly Lys Gln Phe
85 90 95

Pro Arg Cys Gln Tyr His Ser Val Thr Ser Leu Glu Lys Ile Leu Thr
100 105 110

Val Leu Thr Gly His Ser Leu Met Ser Trp Leu Val Cys Gly Ser Lys
115 120 125

Leu

<210> 33
<211> 1860
<212> DNA
<213> Homo sapiens

<400> 33
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<210> 34

<211> 619

<212> PRT

<213> Homo sapiens

<400> 34

Met Asp Arg His Leu Leu Leu Pro Gly Leu Leu Leu Ser Leu Pro Leu
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20 25 30

Leu Ser Met Val Ser Arg Phe Phe Leu Ile Cys Leu Leu Asp Ser Ser
35 40 45

Leu Pro Phe Leu Thr Thr Cys Leu Ser Val Ile Asn Leu Val Arg Ala
50 55 60

Leu Glu Thr Val Leu Gln Asn Val Glu Gly Leu Cys Gln Ser Gly Ser
65 70 75 80

Thr Ser Ala Leu Pro Gln Asp Ala Phe Ser Arg Phe Pro Gly Leu Lys
85 90 95

Ala Glu Ala Gly Gln Ser Trp Ser Leu Pro Gly Pro Gln Ala Gly Asp
100 105 110

Ser Glu Ser Gly Pro His Lys Asp Glu Gly Arg Cys Thr Gly Gly Thr
115 120 125

Gly Ala Ala Glu Ile Gly Cys Pro Val Thr Leu Thr Asp Met Ala Glu
130 135 140

Leu Pro Ala Arg Met Val Ala His Phe Glu Leu Gln Glu Leu Asn Leu
145 150 155 160

Gly Ile Asn Arg Thr Arg His Ile Ala Leu Glu Gly Leu Ala Ser Cys
165 170 175

His Ser Leu Lys Ser Ser Gly Leu Arg Ser Asn Gly Leu Ile Glu Leu
180 185 190

Pro Arg Gly Phe Leu Ala Ala Met Pro Arg Leu Gln Arg Leu Asn Leu
195 200 205

Ala Asn Asn Gln Leu Arg Ser Ala Met Leu Cys Met Asn Glu Thr Gly
210 215 220

Phe Val Ser Gly Leu Trp Ala Leu Asp Leu Ser Lys Asn Arg Leu Cys

225	230	235	240
Thr Leu Ser Pro Val Ile Phe Ser Cys Leu Pro His Leu Arg Glu Leu			
245 250 255			
Leu Leu Gln Gly Asn Gln Leu Val Cys Leu Lys Asp Gln Val Phe Gln			
260 265 270			
Gly Leu Gln Arg Leu Gln Thr Leu Asn Leu Gly Asn Asn Pro Leu Val			
275 280 285			
Thr Leu Gly Glu Gly Trp Leu Ala Pro Leu Pro Thr Leu Thr Thr Gln			
290 295 300			
Asn Leu Val Gly Thr His Met Val Leu Ser Pro Thr Trp Gly Phe Arg			
305 310 320			
Gly Pro Glu Ser Leu His Ser Leu Arg Ile Gln Phe Pro Phe Gly Pro			
325 330 335			
Ala Gly Val Ala Phe Ser Leu Leu Thr Arg Leu Thr Ser Leu Glu Leu			
340 345 350			
His Ala Val Ser Gly Met Lys His Trp Arg Leu Ser Pro Asn Val Phe			
355 360 365			
Pro Val Leu Gln Ile Leu Thr Leu Lys Gly Trp Gly Leu Gln Leu Glu			
370 375 380			
Thr Gln Asn Ile Ser Lys Ile Phe Pro Ala Leu His Gln Leu Ser Leu			
385 390 395 400			
Leu Gly Thr Pro Glu Ala Gln Val Leu Glu Gly Trp Gly Asn Arg His			
405 410 415			
Ser Pro Arg Pro Tyr Cys Ile Thr Gly Leu Pro Ser Leu Gln Glu Leu			
420 425 430			
Lys Leu Gln Ala Leu Gln Ser Gln Ala Cys Pro Cys Pro Val Arg Leu			
435 440 445			
Glu Glu Leu Val Gly Leu Glu Thr Leu Ser Ala Ala Ala Phe Gly Gly			
450 455 460			
Leu Gly Ser Leu Gln Val Leu Val Leu Asp Arg Glu Lys Asp Phe Met			
465 470 475 480			
Leu Asp Asp Ser Leu Gln Glu His Ser Pro Arg Met Pro Gln Tyr Ile			
485 490 495			
Tyr Ile Leu Thr Ser Ser Leu Ala Cys Gln Cys Ala Asn Ala Cys Leu			
500 505 510			
Cys Pro Ala Ala Ser Ala Gly Leu Leu Ala Leu Pro Lys Gly Ser Gln			
515 520 525			
Glu Phe Leu Asp Pro Leu Thr Gln Gly Leu Ala Gln Gly Leu Val Pro			

530

535

540

Glu Ser Glu Glu Ser Glu Gly Gln Asp Gln Gly Trp Met Val Gln Glu
545 550 555 560

Leu Leu Pro Ala Leu Glu Asp Cys Pro Pro Ala Gly Arg Gly Leu Pro
565 570 575

Leu Cys Leu His Glu Trp Asp Phe Glu Pro Gly Lys Asp Val Ala Asp
580 585 590

Asn Ala Ala Asp Ser Met Ile Gly Leu Val Ala Pro Leu Lys Arg Leu
595 600 605

Leu His Val Ala Gln Gly Arg Gly Lys Lys Glu
610 615

<210> 35

<211> 4660

<212> DNA

<213> Homo sapiens

<400> 35

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<212> PRT
<213> Homo sapiens

<400> 36
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35	40	45
Leu Leu Ser His Leu Asn Glu Thr Val Thr Val Ser Ala Ser Leu Glu		
50	55	60
Ser Gly Arg Glu Asn Arg Ser Leu Phe Thr Asp Leu Val Ala Glu Lys		
65	70	75
Asp Leu Phe His Cys Val Ser Phe Thr Val Pro Arg Ile Ser Ala Ser		
85	90	95
Ser Glu Val Ala Phe Leu Ser Ile Gln Ile Lys Gly Pro Thr Gln Asp		
100	105	110
Phe Arg Lys Arg Asn Thr Val Leu Val Leu Asn Thr Gln Ser Leu Val		
115	120	125
Phe Val Gln Thr Asp Lys Pro Met Tyr Lys Pro Gly Gln Thr Gly Lys		
130	135	140
Val Arg Phe Arg Val Val Ser Val Asp Glu Asn Phe Arg Pro Arg Asn		
145	150	155
160		
Glu Leu Val Ser Leu Val Ser Leu Gln Asn Pro Arg Arg Asn Arg Ile		
165	170	175
Ala Gln Trp Gln Ser Leu Lys Leu Glu Ala Gly Ile Asn Gln Leu Ser		
180	185	190
Phe Pro Leu Ser Ser Glu Pro Ile Gln Gly Ser Tyr Arg Val Val Val		
195	200	205
Gln Thr Glu Ser Gly Gly Arg Ile Gln His Pro Phe Thr Val Glu Glu		
210	215	220
Phe Val Leu Pro Lys Phe Glu Val Lys Val Gln Val Pro Lys Ile Ile		
225	230	235
240		
Ser Ile Met Asp Glu Lys Val Asn Ile Thr Val Cys Gly Cys Tyr Arg		
245	250	255
Tyr Thr Tyr Gly Glu Pro Val Pro Gly Leu Val Thr Leu Ser Val Cys		
260	265	270
Arg Arg Tyr Ser Leu Cys Arg Ser Asp Cys His Asn Thr His Ser Gln		
275	280	285
Leu Asn Ser Asn Gly Cys Ile Thr Gln Gln Val His Thr Lys Met Leu		
290	295	300
Gln Ile Thr Asn Thr Gly Phe Glu Met Lys Leu Arg Val Glu Ala Arg		
305	310	315
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Ile Arg Glu Glu Gly Thr Gly Val Glu Val Thr Ala Asn Arg Ile Ser		

325	330	335	
Glu Ile Thr Asn Ile Val Ser Lys Leu Lys Phe Val Lys Val Asp Ser			
340	345	350	
His Phe Arg Gln Gly Ile Pro Phe Phe Ala Gln Val Arg Leu Val Asp			
355	360	365	
Gly Lys Gly Val Pro Ile Pro Asn Lys Leu Phe Phe Ile Ser Val Asn			
370	375	380	
Asp Ala Asn Tyr Tyr Ser Asn Ala Thr Thr Asn Glu Gln Gly Leu Ala			
385	390	395	400
Gln Phe Ser Ile Asn Thr Thr Ser Ile Ser Val Asn Lys Leu Phe Val			
405	410	415	
Arg Val Ser Tyr Lys Glu Ser Asn Asn Cys Ser Asp Asn Trp Trp Leu			
420	425	430	
Asp Glu Phe His Thr Gln Thr Ser His Thr Ala Lys His Phe Phe Ser			
435	440	445	
Pro Ser Lys Ser Tyr Ile His Leu Lys Pro Ile Ile Gly Thr Leu Thr			
450	455	460	
Cys Gly Gln Thr Gln Glu Ile Gln Ala His Tyr Ile Leu Asn Lys Gln			
465	470	475	480
Ile Leu Arg Asp Glu Lys Glu Leu Thr Phe Tyr Tyr Leu Val Lys Ala			
485	490	495	
Arg Gly Lys Ile Ser Gln Ser Gly Ile His Val Leu Ser Ile Glu Gln			
500	505	510	
Gly Asn Ser Lys Gly Ser Phe Ala Leu Ser Phe Pro Val Glu Ser Asp			
515	520	525	
Val Ala Pro Ile Ala Arg Met Phe Ile Phe Ala Ile Leu Pro Asp Gly			
530	535	540	
Glu Val Val Gly Asp Ser Glu Lys Phe Glu Ile Glu Asn Cys Leu Ala			
545	550	555	560
Asn Lys Val Asp Leu Ser Phe Ser Pro Ala Gln Ser Pro Pro Ala Ser			
565	570	575	
His Ala His Leu Gln Val Ala Ala Pro Gln Ser Leu Cys Ala Leu			
580	585	590	
Arg Ala Val Asp Gln Ser Val Leu Leu Met Lys Pro Glu Ala Glu Leu			
595	600	605	
Ser Val Ser Ser Val Tyr Asn Leu Leu Thr Val Lys Asp Leu Thr Asn			
610	615	620	
Phe Pro Asp Asn Val Asp Gln Gln Glu Glu Gln Gly His Cys Pro			

625	630	635	640
Arg Pro Phe Phe Ile His Asn Gly Ala Ile Tyr Val Pro Leu Ser Ser			
645 650 655			
Asn Glu Ala Asp Ile Tyr Ser Phe Leu Lys Gly Met Gly Leu Lys Val			
660 665 670			
Phe Thr Asn Ser Lys Ile Arg Lys Pro Lys Ser Cys Ser Val Ile Pro			
675 680 685			
Ser Val Ser Ala Gly Ala Val Gly Gln Gly Tyr Tyr Gly Ala Gly Leu			
690 695 700			
Gly Val Val Glu Arg Pro Tyr Val Pro Gln Leu Gly Thr Tyr Asn Val			
705 710 715 720			
Ile Pro Leu Asn Asn Glu Gln Ser Ser Gly Pro Val Pro Glu Thr Val			
725 730 735			
Arg Ser Tyr Phe Pro Glu Thr Trp Ile Trp Glu Leu Val Ala Val Ser			
740 745 750			
Ser Ser Gly Val Ala Glu Val Gly Val Thr Val Pro Asp Thr Ile Thr			
755 760 765			
Glu Trp Lys Ala Gly Ala Phe Cys Leu Ser Glu Asp Ala Gly Leu Gly			
770 775 780			
Ile Ser Ser Thr Ala Ser Leu Arg Ala Phe Gln Pro Phe Phe Val Glu			
785 790 795 800			
Leu Thr Met Pro Tyr Ser Val Ile Arg Gly Glu Val Phe Thr Leu Lys			
805 810 815			
Ala Thr Val Leu Asn Tyr Leu Pro Lys Cys Ile Arg Val Val Val Gln			
820 825 830			
Leu Glu Val Ser Ser Ala Phe Leu Ala Val Pro Thr Glu Lys Asn Glu			
835 840 845			
Glu Ser His Cys Val Cys Arg Asn Gly Arg Lys Thr Val Ser Trp Val			
850 855 860			
Val Thr Pro Lys Ser Leu Gly Asn Val Asn Phe Ser Val Ser Ala Glu			
865 870 875 880			
Ala Met Gln Ser Leu Glu Leu Cys Gly Asn Glu Val Val Glu Val Pro			
885 890 895			
Glu Ile Lys Arg Lys Asp Thr Val Ile Lys Thr Leu Leu Val Glu Pro			
900 905 910			
Glu Gly Ile Ala Lys Glu Glu Thr Phe Asn Thr Leu Pro Cys Ala Ser			
915 920 925			
Gly Ala Asn Val Ser Glu Gln Leu Ser Leu Lys Leu Pro Ser Asn Val			

930	935	940	
Val Lys Glu Ser Ala Arg Ala Ser Phe Ser Val Leu Gly Gly Asp Ile			
945	950	955	960
Leu Gly Ser Ala Met Gln Asn Ile Gln Asn Leu Leu Gln Met Pro Tyr			
965	970	975	
Gly Cys Gly Glu Gln Asn Met Val Leu Phe Ala Pro Asn Ile Tyr Val			
980	985	990	
Leu Asn Tyr Leu Asn Glu Thr Gln Gln Leu Thr Gln Glu Ile Lys Ala			
995	1000	1005	
Lys Ala Val Gly Tyr Leu Ile Thr Gly Tyr Gln Arg Gln Leu Asn Tyr			
1010	1015	1020	
Lys His Gln Asp Gly Ser Tyr Ser Thr Phe Gly Glu Arg Tyr Gly Arg			
1025	1030	1035	1040
Asn Gln Gly Asn Thr Trp Leu Thr Ala Phe Val Leu Lys Thr Phe Ala			
1045	1050	1055	
Gln Ala Arg Ser Tyr Ile Phe Ile Asp Glu Ala His Ile Thr Gln Ser			
1060	1065	1070	
Leu Thr Trp Leu Ser Gln Met Gln Lys Asp Asn Gly Cys Phe Arg Ser			
1075	1080	1085	
Ser Gly Ser Leu Leu Asn Asn Ala Ile Lys Gly Gly Val Glu Asp Glu			
1090	1095	1100	
Ala Thr Leu Ser Ala Tyr Val Thr Ile Ala Leu Leu Glu Ile Pro Leu			
1105	1110	1115	1120
Pro Val Thr Asn Pro Ile Val Arg Asn Ala Leu Phe Cys Leu Glu Ser			
1125	1130	1135	
Ala Trp Asn Val Ala Lys Glu Gly Thr His Gly Ser His Val Tyr Thr			
1140	1145	1150	
Lys Ala Leu Leu Ala Tyr Ala Phe Ser Leu Leu Gly Lys Gln Asn Gln			
1155	1160	1165	
Asn Arg Glu Ile Leu Asn Ser Leu Asp Lys Glu Ala Val Lys Asp Asn			
1170	1175	1180	
Leu Val His Trp Glu Arg Pro Gln Arg Pro Lys Ala Pro Val Gly His			
1185	1190	1195	1200
Leu Tyr Gln Thr Gln Ala Pro Ser Ala Glu Val Glu Met Thr Ser Tyr			
1205	1210	1215	
Val Leu Leu Ala Tyr Leu Thr Ala Gln Pro Ala Pro Thr Ser Gly Asp			
1220	1225	1230	
Leu Thr Ser Ala Thr Asn Ile Val Lys Trp Ile Met Lys Gln Gln Asn			

1235	1240	1245	
Ala Gln Gly Gly Phe Ser Ser Thr Gln Asp Thr Val Val Ala Leu His			
1250	1255	1260	
Ala Leu Ser Arg Tyr Gly Ala Ala Thr Phe Thr Arg Thr Glu Lys Thr			
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Ala Gln Val Thr Val Gln Asp Ser Gln Thr Phe Ser Thr Asn Phe Gln			
1285	1290	1295	
Val Asp Asn Asn Asn Leu Leu Leu Gln Gln Ile Ser Leu Pro Glu			
1300	1305	1310	
Leu Pro Gly Glu Tyr Val Ile Thr Val Thr Gly Glu Arg Cys Val Tyr			
1315	1320	1325	
Leu Gln Thr Ser Met Lys Tyr Asn Ile Leu Pro Glu Lys Glu Asp Ser			
1330	1335	1340	
Pro Phe Ala Leu Lys Val Gln Thr Val Pro Gln Thr Cys Asp Gly His			
1345	1350	1355	1360
Lys Ala His Thr Ser Phe Gln Ile Ser Leu Thr Ile Ser Tyr Thr Gly			
1365	1370	1375	
Asn Arg Pro Ala Ser Asn Met Val Ile Val Asp Val Lys Met Val Ser			
1380	1385	1390	
Gly Phe Ile Pro Leu Lys Pro Thr Val Lys Met Leu Glu Arg Ser Ser			
1395	1400	1405	
Ser Val Ser Arg Thr Glu Val Ser Asn Asn His Val Leu Ile Tyr Val			
1410	1415	1420	
Glu Gln Val Leu Thr His Gln Thr Leu His Phe Ser Phe Phe Val Glu			
1425	1430	1435	1440
Gln Asp Ile Gln Ile Lys Asn Leu Lys Pro Ala Thr Val Lys Ala Tyr			
1445	1450	1455	
Asp Tyr Tyr Glu Thr Ser Asp Glu Phe Thr Phe Glu Glu Tyr Asn Ala			
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 <212> DNA
 <213> Homo sapiens

<400> 37
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 <211> 945
 <212> PRT
 <213> Homo sapiens

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Glu Val Leu Pro Asp Ser Phe Pro Ser Ala Pro Ala Glu Pro Leu Pro
 35 40 45

Tyr Phe Leu Gln Glu Pro Gln Asp Ala Tyr Ile Val Lys Asn Lys Pro
 50 55 60

Val Glu Leu Arg Cys Arg Ala Phe Pro Ala Thr Gln Ile Tyr Phe Lys
 65 70 75 80

Cys Asn Gly Glu Trp Val Ser Gln Asn Asp His Val Thr Gln Glu Gly
 85 90 95

Leu Asp Glu Ala Thr Gly Leu Arg Val Arg Glu Val Gln Ile Glu Val
 100 105 110

Ser Arg Gln Gln Val Glu Glu Leu Phe Gly Leu Glu Asp Tyr Trp Cys
 115 120 125

Gln Cys Val Ala Trp Ser Ser Ala Gly Thr Thr Lys Ser Arg Arg Ala
 130 135 140

Tyr Val Arg Ile Ala Cys Leu Arg Lys Asn Phe Asp Gln Glu Pro Leu
 145 150 155 160

Gly Lys Glu Val Pro Leu Asp His Glu Val Leu Leu Gln Cys Arg Pro
 165 170 175

Pro Glu Gly Val Pro Val Ala Glu Val Glu Trp Leu Lys Asn Glu Asp
 180 185 190

Val Ile Asp Pro Thr Gln Asp Thr Asn Phe Leu Leu Thr Ile Asp His
 195 200 205

Asn Leu Ile Ile Arg Gln Ala Arg Leu Ser Asp Thr Ala Asn Tyr Thr
 210 215 220

Cys Val Ala Lys Asn Ile Val Ala Lys Arg Arg Ser Thr Thr Ala Thr
 225 230 235 240

Val Ile Val Tyr Val Asn Gly Gly Trp Ser Ser Trp Ala Glu Trp Ser
 245 250 255

Pro Cys Ser Asn Arg Cys Gly Arg Gly Trp Gln Lys Arg Thr Arg Thr
 260 265 270

Cys Thr Asn Pro Ala Pro Leu Asn Gly Gly Ala Phe Cys Glu Gly Gln
 275 280 285

Ala Phe Gln Lys Thr Ala Cys Thr Thr Ile Cys Pro Val Asp Gly Ala
 290 295 300

Trp Thr Glu Trp Ser Lys Trp Ser Ala Cys Ser Thr Glu Cys Ala His
 305 310 315 320

Trp Arg Ser Arg Glu Cys Met Ala Pro Pro Pro Gln Asn Gly Gly Arg
 325 330 335
 Asp Cys Ser Gly Thr Leu Leu Asp Ser Lys Asn Cys Thr Asp Gly Leu
 340 345 350
 Cys Met Gln Ser Glu Ser Gln Cys Gly Pro Pro Val Pro Ala Val Leu
 355 360 365
 Glu Ala Ser Gly Asp Ala Ala Leu Tyr Ala Gly Leu Val Val Ala Ile
 370 375 380
 Phe Val Val Val Ala Ile Leu Met Ala Val Gly Val Val Val Tyr Arg
 385 390 395 400
 Arg Asn Cys Arg Asp Phe Asp Thr Asp Ile Thr Asp Ser Ser Ala Ala
 405 410 415
 Leu Thr Gly Gly Phe His Pro Val Asn Phe Lys Thr Ala Arg Pro Ser
 420 425 430
 Asn Pro Gln Leu Leu His Pro Ser Val Pro Pro Asp Leu Thr Ala Ser
 435 440 445
 Ala Gly Ile Tyr Arg Gly Pro Val Tyr Ala Leu Gln Asp Ser Thr Asp
 450 455 460
 Lys Ile Pro Met Thr Asn Ser Pro Leu Leu Asp Pro Leu Pro Ser Leu
 465 470 475 480
 Lys Val Lys Val Tyr Ser Ser Ser Thr Thr Gly Ser Gly Pro Gly Leu
 485 490 495
 Ala Asp Gly Ala Asp Leu Leu Gly Val Leu Pro Pro Gly Thr Tyr Pro
 500 505 510
 Ser Asp Phe Ala Arg Asp Thr His Phe Leu His Leu Arg Ser Ala Ser
 515 520 525
 Leu Gly Ser Gln Gln Leu Leu Gly Leu Pro Arg Asp Pro Gly Ser Ser
 530 535 540
 Val Ser Gly Thr Phe Gly Cys Leu Gly Gly Arg Leu Ser Ile Pro Gly
 545 550 555 560
 Thr Gly Val Ser Leu Leu Val Pro Asn Gly Ala Ile Pro Gln Gly Lys
 565 570 575
 Phe Tyr Glu Met Tyr Leu Leu Ile Asn Lys Ala Glu Ser Thr Leu Pro
 580 585 590
 Leu Ser Glu Gly Thr Gln Thr Val Leu Ser Pro Ser Val Thr Cys Gly
 595 600 605
 Pro Thr Gly Leu Leu Leu Cys Arg Pro Val Ile Leu Thr Met Pro His
 610 615 620

Cys Ala Glu Val Ser Ala Arg Asp Trp Ile Phe Gln Leu Lys Thr Gln
 625 630 635 640
 Ala His Gln Gly His Trp Glu Glu Val Val Thr Leu Asp Glu Glu Thr
 645 650 655
 Leu Asn Thr Pro Cys Tyr Cys Gln Leu Glu Pro Arg Ala Cys His Ile
 660 665 670
 Leu Leu Asp Gln Leu Gly Thr Tyr Val Phe Thr Gly Glu Ser Tyr Ser
 675 680 685
 Arg Ser Ala Val Lys Arg Leu Gln Leu Ala Val Phe Ala Pro Ala Leu
 690 695 700
 Cys Thr Ser Leu Glu Tyr Ser Leu Arg Val Tyr Cys Leu Glu Asp Thr
 705 710 715 720
 Pro Val Ala Leu Lys Glu Val Leu Glu Leu Glu Arg Thr Leu Gly Gly
 725 730 735
 Tyr Leu Val Glu Glu Pro Lys Pro Leu Met Phe Lys Asp Ser Tyr His
 740 745 750
 Asn Leu Arg Leu Ser Leu His Asp Leu Pro His Ala His Trp Arg Ser
 755 760 765
 Lys Leu Leu Ala Lys Tyr Gln Glu Ile Pro Phe Tyr His Ile Trp Ser
 770 775 780
 Gly Ser Gln Lys Ala Leu His Cys Thr Phe Thr Leu Glu Arg His Ser
 785 790 795 800
 Leu Ala Ser Thr Glu Leu Thr Cys Lys Ile Cys Val Arg Gln Val Glu
 805 810 815
 Gly Glu Gly Gln Ile Phe Gln Leu His Thr Thr Leu Ala Glu Thr Pro
 820 825 830
 Ala Gly Ser Leu Asp Thr Leu Cys Ser Ala Pro Gly Ser Thr Val Thr
 835 840 845
 Thr Gln Leu Gly Pro Tyr Ala Phe Lys Ile Pro Leu Ser Ile Arg Gln
 850 855 860
 Lys Ile Cys Asn Ser Leu Asp Ala Pro Asn Ser Arg Gly Asn Asp Trp
 865 870 875 880
 Arg Met Leu Ala Gln Lys Leu Ser Met Asp Arg Tyr Leu Asn Tyr Phe
 885 890 895
 Ala Thr Lys Ala Ser Pro Thr Gly Val Ile Leu Asp Leu Trp Glu Ala
 900 905 910
 Leu Gln Gln Asp Asp Gly Asp Leu Asn Ser Leu Ala Ser Ala Leu Glu
 915 920 925

Glu Met Gly Lys Ser Glu Met Leu Val Ala Val Ala Thr Asp Gly Asp
930 935 940

Cys
945

<210> 39
<211> 192
<212> DNA
<213> Homo sapiens

<400> 39
ttttcttt caggcttct tctagtcaag atgagtgata aaccagactt gtcggaagtg 60
gagaagttt acaggtaaa actgaagaaa actaatactg aaaaaaaaaa tactcttccc 120
tcaaaggaaa gtaagtcatg tggggttcta ctggaaacaa acaatagagg aagttaatag 180
gttcagtaaa ta 192

<210> 40
<211> 48
<212> PRT
<213> Homo sapiens

<400> 40
Met Ser Asp Lys Pro Asp Leu Ser Glu Val Glu Lys Phe Asp Arg Ser
1 5 10 15

Lys Leu Lys Lys Thr Asn Thr Glu Glu Lys Asn Thr Leu Pro Ser Lys
20 25 30

Glu Ser Lys Ser Cys Gly Val Leu Leu Glu Thr Asn Asn Arg Gly Ser
35 40 45

<210> 41
<211> 594
<212> DNA
<213> Homo sapiens

<400> 41
ctgggttttgcggccgatc aggcgcagcc ggtgtacctg cgtgaccagg tcgcccacg 60
gaaaggcaccg ccggcatgac aactggtcgg atgcttggcg tcaggattcc ttccggattt 120
gcacaaggacg cagcccgccg ctacattgcc agcactgtcc ctgttccagc cgagccacc 180
gagcagtccct agatgcggat cgacggttac ctacccctt actcgccaga tcgtggcccc 240
cgttcgggga ctgcggtcac gccttatcga gaggcgcagc gggaggtcga ggctcagcgt 300
gaacagccgg ctgccccagc cagcagccag gggctggagc aggcgcgcga gattcgcgc 360
gtgcaggcca gcagcagtaa caccgatagc ctgcccaccc gctcgcagga cctcggttat 420
caacaaccta cgttgagcaa ccgtgcccgt caggcggtgg ccagctacag caccaccg 480
gcttacgcca gcgagtagca tgccgcaggaa gtgcgcggcc tcgatctcta cgcgttaaccc 540
cgttcacgg cgtgggtcag cccctcagct ggaccgtcgc atagatcgat gagc 594

<210> 42

<211> 114
 <212> PRT
 <213> Homo sapiens

<400> 42
 Met Arg Ile Asp Gly Tyr Leu Pro Ser Tyr Ser Pro Asp Arg Gly Pro
 1 5 10 15

Arg Ser Gly Thr Ala Val Thr Pro Tyr Arg Glu Ala Gln Arg Glu Val
 20 25 30

Glu Ala Gln Arg Glu Gln Pro Ala Ala Pro Ala Ser Ser Gln Gly Leu
 35 40 45

Glu Gln Ala Pro Gln Ile Arg Arg Val Gln Ala Ser Ser Ser Asn Thr
 50 55 60

Asp Ser Leu Pro Thr Arg Ser Gln Asp Leu Gly Tyr Gln Gln Pro Thr
 65 70 75 80

Leu Ser Asn Arg Ala Ala Gln Ala Leu Ala Ser Tyr Ser Thr Thr Ala
 85 90 95

Ala Tyr Ala Ser Glu Tyr Asp Ala Gln Glu Val Leu Gly Leu Asp Leu
 100 105 110

Tyr Ala

<210> 43
 <211> 1102
 <212> DNA
 <213> Homo sapiens

<400> 43
 gggcccttgt cctgggccat ggcccagaag ggggtcctgg ggcctggca gctggggct 60
 gtggccaatt ctgactcata ctcactttac gggttggtgc cgccggacc cgctagggc 120
 ccccccgtact gcggggcgccc tgagccctcg gcccgcacatcg tggggggctc aaacgcgcag 180
 cccggcacct ggccttggca agtgagcctg caccatggag gtggccacat ctgcggggc 240
 tccctcatcg ccccttcctg ggtcctctcc gctgctact gttcatgac gaatggacg 300
 ttggagcccg cggccgagtg gtcggtaactg ctggcgtgc actcccagga cggcccccctg 360
 gacggcgcgc acacccgcgc agtggccgccc atcgtgtgc cggccaaacta cagccaagt 420
 gagctggcgcc cgacctggc cctgctgcgc ctggcctcac ccgcgcaccccttggcc 480
 gtgtggctg tctgcctgccc ccgcgcctca caccgcctcg tgacggcac cgcctgtgg 540
 gccaccggct ggggagacgt ccaggaggca gatcctctgc ctctccctg ggtgctacag 600
 gaagtggagc taaggctgtgt gggcgaggcc acctgtcaat gtctctacag ccagcccggt 660
 cccttcaacc tcactctcca gatattgcca gggatgtgt gtgtggctca cccagaggc 720
 cgcaggggaca cctgccaggg tgactctggg gggccctgg tctgtgagga aggcggccgc 780
 tggttccagg caggaatcac cagctttggg tttggctgtg gacggagaaa ccggccctgga 840
 gttttcaactg ctgtggctac ctatgaggca tggatacggg agcaggtgtat gggttcagag 900
 cctggccctg cctttccac ccagcccccag aagaccagt cagattgtt acatcaaacg 960
 gcattcctgg attctgccag aatccttttggg aggccctgtt cccatatatc agtaggagtc 1020
 tcaactggaa ccaaaagcct tgcctcccc tggctctc cacactctc cctggccctc 1080
 tgggggttct gatggggcct cc 1102

<210> 44
<211> 344
<212> PRT
<213> Homo sapiens

<400> 44
Met Ala Gln Lys Gly Val Leu Gly Pro Gly Gln Leu Gly Ala Val Ala
1 5 10 15
Asn Ser Asp Ser Tyr Ser Leu Tyr Gly Leu Val Pro Ser Gly Pro Ala
20 25 30
Arg Gly Pro Pro Tyr Cys Gly Arg Pro Glu Pro Ser Ala Arg Ile Val
35 40 45
Gly Gly Ser Asn Ala Gln Pro Gly Thr Trp Pro Trp Gln Val Ser Leu
50 55 60
His His Gly Gly His Ile Cys Gly Ser Leu Ile Ala Pro Ser
65 70 75 80
Trp Val Leu Ser Ala Ala His Cys Phe Met Thr Asn Gly Thr Leu Glu
85 90 95
Pro Ala Ala Glu Trp Ser Val Leu Leu Gly Val His Ser Gln Asp Gly
100 105 110
Pro Leu Asp Gly Ala His Thr Arg Ala Val Ala Ala Ile Val Val Pro
115 120 125
Ala Asn Tyr Ser Gln Val Glu Leu Gly Ala Asp Leu Ala Leu Leu Arg
130 135 140
Leu Ala Ser Pro Ala Ser Leu Gly Pro Ala Val Trp Pro Val Cys Leu
145 150 155 160
Pro Arg Ala Ser His Arg Phe Val His Gly Thr Ala Cys Trp Ala Thr
165 170 175
Gly Trp Gly Asp Val Gln Glu Ala Asp Pro Leu Pro Leu Pro Trp Val
180 185 190
Leu Gln Glu Val Glu Leu Arg Leu Leu Gly Glu Ala Thr Cys Gln Cys
195 200 205
Leu Tyr Ser Gln Pro Gly Pro Phe Asn Leu Thr Leu Gln Ile Leu Pro
210 215 220
Gly Met Leu Cys Ala Gly Tyr Pro Glu Gly Arg Arg Asp Thr Cys Gln
225 230 235 240
Gly Asp Ser Gly Gly Pro Leu Val Cys Glu Glu Gly Arg Trp Phe
245 250 255
Gln Ala Gly Ile Thr Ser Phe Gly Phe Gly Cys Gly Arg Arg Asn Arg
260 265 270

Pro Gly Val Phe Thr Ala Val Ala Thr Tyr Glu Ala Trp Ile Arg Glu
275 280 285

Gln Val Met Gly Ser Glu Pro Gly Pro Ala Phe Pro Thr Gln Pro Gln
290 295 300 320

Lys Thr Gln Ser Asp Cys Leu His Gln Thr Ala Phe Leu Asp Ser Ala
305 310 315 320

Arg Ile Leu Leu Arg Pro Leu Ser His Ile Ser Val Gly Val Ser Thr
325 330 335

Gly Thr Lys Ser Leu Val Leu Pro
340

<210> 45

<211> 1102

<212> DNA

<213> Homo sapiens

<400> 45

ggcccttgc cctggccat gccccagaag ggggtcctgg ggcctggca gctggggct 60
gtggccaatt ctgactcata ctcactttac gggttgtgc cgtccggacc cgctagggc 120
ccccctgact gcggggcccc tgagccctcg gcccgcacatcg tggggggctc aaacgcgcag 180
ccgggcacct ggccttggca agtgagcctg caccatggag gtggccacat ctgcggggc 240
tccctcatcg cccccctcctg ggtcctctcc gctgctact gttcatgac gaatgggacg 300
ttggagcccg cgcccgactg gtcggtaactg ctggcggtgc actcccagga cgggcccctg 360
gacggcgcgc acacccgcgc agtggccgac atcgtgtgc cggccaaacta cagccaagtg 420
gagctggcgcc cgacactggc cctgctgcgc ctggcctcact cccgcacgct gggcccccgc 480
gtgtggcctg tctgcctgccc cccgcctca caccgcttcg tgacggcac cgcctgtgg 540
gccaccggct ggggagacgt ccaggaggca gatcctctgc ctctccctg ggtgtacag 600
gaagtggagc taaggctgct gggcgaggcc acctgtcaat gtctctacag ccagcccggt 660
cccttcaacc tcactctcca gatattgcca gggatgtgt gtgctggcta cccagagggc 720
cgccaggaca cctgccagg tgactctggg gggccctgg tctgtgagga aggcggcrgc 780
tggttccagg caggaatcac cagctttggg tttggctgtg gacggagaaa cccgcctgg 840
gttttactg ctgtggctac ctatgaggca tggatacggg agcaggtgtat gggttcagag 900
cctgggcctg cctttccac ccagccccag aagaccagt cagattgtt acatcaaacg 960
gcattcctgg attctgccag aatccttttg aggccctgt cccatatatac agtaggagtc 1020
tcaactggga ccaaaagcct tgcctcccc tggctctctc cacactctct cctgggcctc 1080
tgggggttct gatggggcct cc 1102

<210> 46

<211> 357

<212> PRT

<213> Homo sapiens

<400> 46

Met Ala Gln Lys Gly Val Leu Gly Pro Gly Gln Leu Gly Ala Val Ala
1 5 10 15

Asn Ser Asp Ser Tyr Ser Leu Tyr Gly Leu Val Pro Ser Gly Pro Ala
20 25 30

Arg Gly Pro Pro Tyr Cys Gly Arg Pro Glu Pro Ser Ala Arg Ile Val
35 40 45

Gly Gly Ser Asn Ala Gln Pro Gly Thr Trp Pro Trp Gln Val Ser Leu
 50 55 60
 His His Gly Gly His Ile Cys Gly Ser Leu Ile Ala Pro Ser
 65 70 75 80
 Trp Val Leu Ser Ala Ala His Cys Phe Met Thr Asn Gly Thr Leu Glu
 85 90 95
 Pro Ala Ala Glu Trp Ser Val Leu Leu Gly Val His Ser Gln Asp Gly
 100 105 110
 Pro Leu Asp Gly Ala His Thr Arg Ala Val Ala Ala Ile Val Val Pro
 115 120 125
 Ala Asn Tyr Ser Gln Val Glu Leu Gly Ala Asp Leu Ala Leu Leu Arg
 130 135 140
 Leu Ala Ser Pro Ala Ser Leu Gly Pro Ala Val Trp Pro Val Cys Leu
 145 150 155 160
 Pro Arg Ala Ser His Arg Phe Val His Gly Thr Ala Cys Trp Ala Thr
 165 170 175
 Gly Trp Gly Asp Val Gln Glu Ala Asp Pro Leu Pro Leu Pro Trp Val
 180 185 190
 Leu Gln Glu Val Glu Leu Arg Leu Leu Gly Glu Ala Thr Cys Gln Cys
 195 200 205
 Leu Tyr Ser Gln Pro Gly Pro Phe Asn Leu Thr Leu Gln Ile Leu Pro
 210 215 220
 Gly Met Leu Cys Ala Gly Tyr Pro Glu Gly Arg Arg Asp Thr Cys Gln
 225 230 235 240
 Gly Asp Ser Gly Gly Pro Leu Val Cys Glu Glu Gly Arg Trp Phe
 245 250 255
 Gln Ala Gly Ile Thr Ser Phe Gly Phe Gly Cys Gly Arg Arg Asn Arg
 260 265 270
 Pro Gly Val Phe Thr Ala Val Ala Thr Tyr Glu Ala Trp Ile Arg Glu
 275 280 285
 Gln Val Met Gly Ser Glu Pro Gly Pro Ala Phe Pro Thr Gln Pro Gln
 290 295 300
 Lys Thr Gln Ser Asp Cys Leu His Gln Thr Ala Phe Leu Asp Ser Ala
 305 310 315 320
 Arg Ile Leu Leu Arg Pro Leu Ser His Ile Ser Val Gly Val Ser Thr
 325 330 335
 Gly Thr Lys Ser Leu Val Leu Pro Trp Leu Ser Pro His Ser Leu Leu
 340 345 350

Gly Leu Trp Gly Phe
355

<210> 47
<211> 3635
<212> PRT
<213> Mus musculus

<400> 47
Asp Leu Tyr Cys Lys Leu Val Gly Gly Pro Val Ala Gly Gly Asp Pro
1 5 10 15
Asn Gln Thr Ile Gln Gly Gln Tyr Cys Asp Ile Cys Thr Ala Ala Asn
20 25 30
Ser Asn Lys Ala His Pro Val Ser Asn Ala Ile Asp Gly Thr Glu Arg
35 40 45
Trp Trp Gln Ser Pro Pro Leu Ser Arg Gly Leu Glu Tyr Asn Glu Val
50 55 60
Asn Val Thr Leu Asp Leu Gly Gln Val Phe His Val Ala Tyr Val Leu
65 70 75 80
Ile Lys Phe Ala Asn Ser Pro Arg Pro Asp Leu Trp Val Leu Glu Arg
85 90 95
Ser Thr Asp Phe Gly His Thr Tyr Gln Pro Trp Gln Phe Phe Ala Ser
100 105 110
Ser Lys Arg Asp Cys Leu Glu Arg Phe Gly Pro Arg Thr Leu Glu Arg
115 120 125
Ile Thr Gln Asp Asp Asp Val Ile Cys Thr Thr Glu Tyr Ser Arg Ile
130 135 140
Val Pro Leu Glu Asn Gly Glu Ile Val Val Ser Leu Val Asn Gly Arg
145 150 155 160
Pro Gly Ala Leu Asn Phe Ser Tyr Ser Pro Leu Leu Arg Asp Phe Thr
165 170 175
Lys Ala Thr Asn Ile Arg Leu Arg Phe Leu Arg Thr Asn Thr Leu Leu
180 185 190
Gly His Leu Met Gly Lys Ala Leu Arg Asp Pro Thr Val Thr Arg Arg
195 200 205
Tyr Tyr Tyr Ser Ile Lys Asp Ile Ser Ile Gly Gly Arg Cys Val Cys
210 215 220
His Gly His Ala Asp Val Cys Asp Ala Lys Asp Pro Leu Asp Pro Phe
225 230 235 240
Arg Leu Gln Cys Ala Cys Gln His Asn Thr Cys Gly Ser Cys Asp

	245	250	255
Arg Cys Cys Pro Gly Phe Asn Gln Gln Pro Trp Lys Pro Ala Thr Thr			
260	265	270	
Asp Ser Ala Asn Glu Cys Gln Ser Cys Asn Cys His Gly His Ala Tyr			
275	280	285	
Asp Cys Tyr Tyr Asp Pro Glu Val Asp Arg Arg Asn Ala Ser Gln Asn			
290	295	300	
Gln Asp Asn Val Tyr Gln Gly Gly Val Cys Leu Asp Cys Gln His			
305	310	315	320
His Thr Thr Gly Ile Asn Cys Glu Arg Cys Leu Pro Gly Phe Phe Arg			
325	330	335	
Ala Pro Asp Gln Pro Leu Asp Ser Pro His Val Cys Arg Pro Cys Asp			
340	345	350	
Cys Glu Ser Asp Phe Thr Asp Gly Thr Cys Glu Asp Leu Thr Gly Arg			
355	360	365	
Cys Tyr Cys Arg Pro Asn Phe Thr Gly Glu Leu Cys Ala Ala Cys Ala			
370	375	380	
Glu Gly Tyr Thr Asp Phe Pro His Cys Tyr Pro Leu Pro Ser Phe Pro			
385	390	395	400
His Asn Asp Thr Arg Glu Gln Val Leu Pro Ala Gly Gln Ile Val Asn			
405	410	415	
Cys Asp Cys Asn Ala Ala Gly Thr Gln Gly Asn Ala Cys Arg Lys Asp			
420	425	430	
Pro Arg Leu Gly Arg Cys Val Cys Lys Pro Asn Phe Arg Gly Ala His			
435	440	445	
Cys Glu Leu Cys Ala Pro Gly Phe His Gly Pro Ser Cys His Pro Cys			
450	455	460	
Gln Cys Ser Ser Pro Gly Val Ala Asn Ser Leu Cys Asp Pro Glu Ser			
465	470	475	480
Gly Gln Cys Met Cys Arg Thr Gly Phe Glu Gly Asp Arg Cys Asp His			
485	490	495	
Cys Ala Leu Gly Tyr Phe His Phe Pro Leu Cys Gln Leu Cys Gly Cys			
500	505	510	
Ser Pro Ala Gly Thr Leu Pro Glu Gly Cys Asp Glu Ala Gly Arg Cys			
515	520	525	
Gln Cys Arg Pro Gly Phe Asp Gly Pro His Cys Asp Arg Cys Leu Pro			
530	535	540	
Gly Tyr His Gly Tyr Pro Asp Cys His Ala Cys Ala Cys Asp Pro Arg			

545	550	555	560
Gly Ala Leu Asp Gln Gln Cys Gly Val Gly Gly Leu Cys His Cys Arg			
565	570	575	
Pro Gly Asn Thr Gly Ala Thr Cys Gln Glu Cys Ser Pro Gly Phe Tyr			
580	585	590	
Gly Phe Pro Ser Cys Ile Pro Cys His Cys Ser Ala Asp Gly Ser Leu			
595	600	605	
His Thr Thr Cys Asp Pro Thr Thr Gly Gln Cys Arg Cys Arg Pro Arg			
610	615	620	
Val Thr Gly Leu His Cys Asp Met Cys Val Pro Gly Ala Tyr Asn Phe			
625	630	635	640
Pro Tyr Cys Glu Ala Gly Ser Cys His Pro Ala Gly Leu Ala Pro Ala			
645	650	655	
Asn Pro Ala Leu Pro Glu Thr Gln Ala Pro Cys Met Cys Arg Ala His			
660	665	670	
Val Glu Gly Pro Ser Cys Asp Arg Cys Lys Pro Gly Tyr Trp Gly Leu			
675	680	685	
Ser Ala Ser Asn Pro Glu Gly Cys Thr Arg Cys Ser Cys Asp Pro Arg			
690	695	700	
Gly Thr Leu Gly Gly Val Thr Glu Cys Gln Gly Asn Gly Gln Cys Phe			
705	710	715	720
Cys Lys Ala His Val Cys Gly Lys Thr Cys Ala Ala Cys Lys Asp Gly			
725	730	735	
Phe Phe Gly Leu Asp Tyr Ala Asp Tyr Phe Gly Cys Arg Ser Cys Arg			
740	745	750	
Cys Asp Val Gly Gly Ala Leu Gly Gln Gly Cys Glu Pro Lys Thr Gly			
755	760	765	
Ala Cys Arg Cys Arg Pro Asn Thr Gln Gly Pro Thr Cys Ser Glu Pro			
770	775	780	
Ala Lys Asp His Tyr Leu Pro Asp Leu His His Met Arg Leu Glu Leu			
785	790	795	800
Glu Glu Ala Ala Thr Pro Glu Gly His Ala Val Arg Phe Gly Phe Asn			
805	810	815	
Pro Leu Glu Phe Glu Asn Phe Ser Trp Arg Gly Tyr Ala His Met Met			
820	825	830	
Ala Ile Gln Pro Arg Ile Val Ala Arg Leu Asn Val Thr Ser Pro Asp			
835	840	845	
Leu Phe Arg Leu Val Phe Arg Tyr Val Asn Arg Gly Ser Thr Ser Val			

850	855	860
Asn Gly Gln Ile Ser Val Arg Glu Glu Gly Lys Leu Ser Ser Cys Thr		
865	870	875
Asn Cys Thr Glu Gln Ser Gln Pro Val Ala Phe Pro Pro Ser Thr Glu		
885	890	895
Pro Ala Phe Val Thr Val Pro Gln Arg Gly Phe Gly Glu Pro Phe Val		
900	905	910
Leu Asn Pro Gly Ile Trp Ala Leu Leu Val Glu Ala Glu Gly Val Leu		
915	920	925
Leu Asp Tyr Val Val Leu Leu Pro Ser Thr Tyr Tyr Glu Ala Ala Leu		
930	935	940
Leu Gln His Arg Val Thr Glu Ala Cys Thr Tyr Arg Pro Ser Ala Leu		
945	950	955
His Ser Thr Glu Asn Cys Leu Val Tyr Ala His Leu Pro Leu Asp Gly		
965	970	975
Phe Pro Ser Ala Ala Gly Thr Glu Ala Leu Cys Arg His Asp Asn Ser		
980	985	990
Leu Pro Arg Pro Cys Pro Thr Glu Gln Leu Ser Pro Ser His Pro Pro		
995	1000	1005
Leu Ala Thr Cys Phe Gly Ser Asp Val Asp Ile Gln Leu Glu Met Ala		
1010	1015	1020
Val Pro Gln Pro Gly Gln Tyr Val Leu Val Val Glu Tyr Val Gly Glu		
1025	1030	1035
1040		
Asp Ser His Gln Glu Met Gly Val Ala Val His Thr Pro Gln Arg Ala		
1045	1050	1055
Pro Gln Gln Gly Val Leu Asn Leu His Pro Cys Pro Tyr Ser Ser Leu		
1060	1065	1070
Cys Arg Ser Pro Ala Arg Asp Thr Gln His His Leu Ala Ile Phe His		
1075	1080	1085
Leu Asp Ser Glu Ala Ser Ile Arg Leu Thr Ala Glu Gln Ala His Phe		
1090	1095	1100
Phe Leu His Ser Val Thr Leu Val Pro Val Glu Glu Phe Ser Thr Glu		
1105	1110	1115
1120		
Phe Val Glu Pro Arg Val Phe Cys Val Ser Ser His Gly Thr Phe Asn		
1125	1130	1135
Pro Ser Ser Ala Ala Cys Leu Ala Ser Arg Phe Pro Lys Pro Pro Gln		
1140	1145	1150
Pro Ile Ile Leu Lys Asp Cys Gln Val Leu Pro Leu Pro Pro Asp Leu		

1155	1160	1165
Pro Leu Thr Gln Ser Gln Glu Leu Ser Pro Gly Ala Pro Pro Glu Gly		
1170	1175	1180
Pro Gln Pro Arg Pro Pro Thr Ala Val Asp Pro Asn Ala Glu Pro Thr		
1185	1190	1195
1200		
Leu Leu Arg His Pro Gln Gly Thr Val Val Phe Thr Thr Gln Val Pro		
1205	1210	1215
Thr Leu Gly Arg Tyr Ala Phe Leu Leu His Gly Tyr Gln Pro Val His		
1220	1225	1230
Pro Ser Phe Pro Val Glu Val Leu Ile Asn Gly Arg Ile Trp Gln		
1235	1240	1245
Gly His Ala Asn Ala Ser Phe Cys Pro His Gly Tyr Gly Cys Arg Thr		
1250	1255	1260
Leu Val Leu Cys Glu Gly Gln Thr Met Leu Asp Val Thr Asp Asn Glu		
1265	1270	1275
1280		
Leu Thr Val Thr Val Arg Val Pro Glu Gly Arg Trp Leu Trp Leu Asp		
1285	1290	1295
Tyr Val Leu Ile Val Pro Glu Asp Ala Tyr Ser Ser Ser Tyr Leu Gln		
1300	1305	1310
Glu Glu Pro Leu Asp Lys Ser Tyr Asp Phe Ile Ser His Cys Ala Thr		
1315	1320	1325
Gln Gly Tyr His Ile Ser Pro Ser Ser Ser Pro Phe Cys Arg Asn		
1330	1335	1340
Ala Ala Thr Ser Leu Ser Leu Phe Tyr Asn Asn Gly Ala Leu Pro Cys		
1345	1350	1355
1360		
Gly Cys His Glu Val Gly Ala Val Ser Pro Thr Cys Glu Pro Phe Gly		
1365	1370	1375
Gly Gln Cys Pro Cys Arg Gly His Val Ile Gly Arg Asp Cys Ser Arg		
1380	1385	1390
Cys Ala Thr Gly Tyr Trp Gly Phe Pro Asn Cys Arg Pro Cys Asp Cys		
1395	1400	1405
Gly Ala Arg Leu Cys Asp Glu Leu Thr Gly Gln Cys Ile Cys Pro Pro		
1410	1415	1420
1425		
Arg Thr Val Pro Pro Asp Cys Leu Val Cys Gln Pro Gln Ser Phe Gly		
1430	1435	1440
Cys His Pro Leu Val Gly Cys Glu Glu Cys Asn Cys Ser Gly Pro Gly		
1445	1450	1455
Val Gln Glu Leu Thr Asp Pro Thr Cys Asp Met Asp Ser Gly Gln Cys		

1460	1465	1470
Arg Cys Arg Pro Asn Val Ala Gly Arg Arg Cys Asp Thr Cys Ala Pro		
1475	1480	1485
Gly Phe Tyr Gly Tyr Pro Ser Cys Arg Pro Cys Asp Cys His Glu Ala		
1490	1495	1500
Gly Thr Met Ala Ser Val Cys Asp Pro Leu Thr Gly Gln Cys His Cys		
1505	1510	1515
Lys Glu Asn Val Gln Gly Ser Arg Cys Asp Gln Cys Arg Val Gly Thr		
1525	1530	1535
Phe Ser Leu Asp Ala Ala Asn Pro Lys Gly Cys Thr Arg Cys Phe Cys		
1540	1545	1550
Phe Gly Ala Thr Glu Arg Cys Gly Asn Ser Asn Leu Ala Arg His Glu		
1555	1560	1565
Phe Val Asp Met Glu Gly Trp Val Leu Leu Ser Ser Asp Arg Gln Val		
1570	1575	1580
Val Pro His Glu His Arg Pro Glu Ile Glu Leu Leu His Ala Asp Leu		
1585	1590	1595
Arg Ser Val Ala Asp Thr Phe Ser Glu Leu Tyr Trp Gln Ala Pro Pro		
1605	1610	1615
Ser Tyr Leu Gly Asp Arg Val Ser Ser Tyr Gly Gly Thr Leu His Tyr		
1620	1625	1630
Glu Leu His Ser Glu Thr Gln Arg Gly Asp Ile Phe Ile Pro Tyr Glu		
1635	1640	1645
Ser Arg Pro Asp Val Val Leu Gln Gly Asn Gln Met Ser Ile Ala Phe		
1650	1655	1660
Leu Glu Leu Ala Tyr Pro Pro Gly Gln Val His Arg Gly Gln Leu		
1665	1670	1675
Gln Leu Val Glu Gly Asn Phe Arg His Leu Glu Thr His Asn Pro Val		
1685	1690	1695
Ser Arg Glu Glu Leu Met Met Val Leu Ala Gly Leu Glu Gln Leu Gln		
1700	1705	1710
Ile Arg Ala Leu Phe Ser Gln Thr Ser Ser Ser Val Ser Leu Arg Arg		
1715	1720	1725
Val Val Leu Glu Val Ala Ser Glu Ala Gly Arg Gly Pro Pro Ala Ser		
1730	1735	1740
Asn Val Glu Leu Cys Met Cys Pro Ala Asn Tyr Arg Gly Asp Ser Cys		
1745	1750	1755
Gln Glu Cys Ala Pro Gly Tyr Tyr Arg Asp Thr Lys Gly Leu Phe Leu		

1765	1770	1775
Gly Arg Cys Val Pro Cys Gln Cys His Gly His Ser Asp Arg Cys Leu		
1780	1785	1790
Pro Gly Ser Gly Ile Cys Val Gly Cys Gln His Asn Thr Glu Gly Asp		
1795	1800	1805
Gln Cys Glu Arg Cys Arg Pro Gly Phe Val Ser Ser Asp Pro Ser Asn		
1810	1815	1820
Pro Ala Ser Pro Cys Val Ser Cys Pro Cys Pro Leu Ala Val Pro Ser		
1825	1830	1835
Asn Asn Phe Ala Asp Gly Cys Val Leu Arg Asn Gly Arg Thr Gln Cys		
1845	1850	1855
Leu Cys Arg Pro Gly Tyr Ala Gly Ala Ser Cys Glu Arg Cys Ala Pro		
1860	1865	1870
Gly Phe Phe Gly Asn Pro Leu Val Leu Gly Ser Ser Cys Gln Pro Cys		
1875	1880	1885
Asp Cys Ser Gly Asn Gly Asp Pro Asn Met Ile Phe Ser Asp Cys Asp		
1890	1895	1900
Pro Leu Thr Gly Ala Cys Arg Gly Cys Leu Arg His Thr Thr Gly Pro		
1905	1910	1915
1920		
His Cys Glu Arg Cys Ala Pro Gly Phe Tyr Gly Asn Ala Leu Leu Pro		
1925	1930	1935
Gly Asn Cys Thr Arg Cys Asp Cys Ser Pro Cys Gly Thr Glu Thr Cys		
1940	1945	1950
Asp Pro Gln Ser Gly Arg Cys Leu Cys Lys Ala Gly Val Thr Gly Gln		
1955	1960	1965
Arg Cys Asp Arg Cys Leu Glu Gly Tyr Phe Gly Phe Glu Gln Cys Gln		
1970	1975	1980
Gly Cys Arg Pro Cys Ala Cys Gly Pro Ala Ala Lys Gly Ser Glu Cys		
1985	1990	1995
2000		
His Pro Gln Ser Gly Gln Cys His Cys Gln Pro Gly Thr Thr Gly Pro		
2005	2010	2015
Gln Cys Leu Glu Cys Ala Pro Gly Tyr Trp Gly Leu Pro Glu Lys Gly		
2020	2025	2030
Cys Arg Arg Cys Gln Cys Pro Arg Gly His Cys Asp Pro His Thr Gly		
2035	2040	2045
His Cys Thr Cys Pro Pro Gly Leu Ser Gly Glu Arg Cys Asp Thr Cys		
2050	2055	2060
Ser Gln Gln His Gln Val Pro Val Pro Gly Lys Pro Gly Gly His Gly		

2065	2070	2075	2080
Ile His Cys Glu Val Cys Asp His Cys Val Val Leu Leu Leu Asp Asp			
2085	2090	2095	
Leu Glu Arg Ala Gly Ala Leu Leu Pro Ala Ile Arg Glu Gln Leu Gln			
2100	2105	2110	
Gly Ile Asn Ala Ser Ser Ala Ala Trp Ala Arg Leu His Arg Leu Asn			
2115	2120	2125	
Ala Ser Ile Ala Asp Leu Gln Ser Lys Leu Arg Arg Pro Pro Gly Pro			
2130	2135	2140	
Arg Tyr Gln Ala Ala Gln Gln Leu Gln Thr Leu Glu Gln Gln Ser Ile			
2145	2150	2155	2160
Ser Leu Gln Gln Asp Thr Glu Arg Leu Gly Ser Gln Ala Thr Gly Val			
2165	2170	2175	
Gln Gly Gln Ala Gly Gln Leu Leu Asp Thr Thr Glu Ser Thr Leu Gly			
2180	2185	2190	
Arg Ala Gln Lys Leu Leu Glu Ser Val Arg Ala Val Gly Arg Ala Leu			
2195	2200	2205	
Asn Glu Leu Ala Ser Arg Met Gly Gln Gly Ser Pro Gly Asp Ala Leu			
2210	2215	2220	
Val Pro Ser Gly Glu Gln Leu Arg Trp Ala Leu Ala Glu Val Glu Arg			
2225	2230	2235	2240
Leu Leu Trp Asp Met Arg Thr Arg Asp Leu Gly Ala Gln Gly Ala Val			
2245	2250	2255	
Ala Glu Ala Glu Leu Ala Glu Ala Gln Arg Leu Met Ala Arg Val Gln			
2260	2265	2270	
Glu Gln Leu Thr Ser Phe Trp Glu Glu Asn Gln Ser Leu Ala Thr His			
2275	2280	2285	
Ile Arg Asp Gln Leu Ala Gln Tyr Glu Ser Gly Leu Met Asp Leu Arg			
2290	2295	2300	
Glu Ala Leu Asn Gln Ala Val Asn Thr Thr Arg Glu Ala Glu Glu Leu			
2305	2310	2315	2320
Asn Ser Arg Asn Gln Glu Arg Val Lys Glu Ala Leu Gln Trp Lys Gln			
2325	2330	2335	
Glu Leu Ser Gln Asp Asn Ala Thr Leu Lys Ala Thr Leu Gln Ala Ala			
2340	2345	2350	
Ser Leu Ile Leu Gly His Val Ser Glu Leu Leu Gln Gly Ile Asp Gln			
2355	2360	2365	
Ala Lys Glu Asp Leu Glu His Leu Ala Ala Ser Leu Asp Gly Ala Trp			

2370	2375	2380
Thr Pro Leu Leu Lys Arg Met Gln Ala Phe Ser Pro Ala Ser Ser Lys		
2385	2390	2395
2400		
Val Asp Leu Val Glu Ala Ala Glu Ala His Ala Gln Lys Leu Asn Gln		
2405	2410	2415
Leu Ala Ile Asn Leu Ser Gly Ile Ile Leu Gly Ile Asn Gln Asp Arg		
2420	2425	2430
Phe Ile Gln Arg Ala Val Glu Ala Ser Asn Ala Tyr Ser Ser Ile Leu		
2435	2440	2445
Gln Ala Val Gln Ala Ala Glu Asp Ala Ala Gly Gln Ala Leu Arg Gln		
2450	2455	2460
Ala Ser Arg Thr Trp Glu Met Val Val Gln Arg Gly Leu Ala Ala Gly		
2465	2470	2475
2480		
Ala Arg Gln Leu Leu Ala Asn Ser Ser Ala Leu Glu Glu Thr Ile Leu		
2485	2490	2495
Gly His Gln Gly Arg Leu Gly Leu Ala Gln Gly Arg Leu Gln Ala Ala		
2500	2505	2510
Gly Ile Gln Leu His Asn Val Trp Ala Arg Lys Asn Gln Leu Ala Ala		
2515	2520	2525
Gln Ile Gln Glu Ala Gln Ala Met Leu Ala Met Asp Thr Ser Glu Thr		
2530	2535	2540
Ser Glu Lys Ile Ala His Ala Lys Ala Val Ala Ala Glu Ala Leu Ser		
2545	2550	2555
2560		
Thr Ala Thr His Val Gln Ser Gln Leu Gln Gly Met Gln Lys Asn Val		
2565	2570	2575
Glu Arg Trp Gln Ser Gln Leu Gly Gly Leu Gln Gly Gln Asp Leu Ser		
2580	2585	2590
Gln Val Glu Arg Asp Ala Ser Ser Ser Val Ser Thr Leu Glu Lys Thr		
2595	2600	2605
Leu Pro Gln Leu Leu Ala Lys Leu Ser Arg Leu Glu Asn Arg Gly Val		
2610	2615	2620
His Asn Ala Ser Leu Ala Leu Ser Ala Asn Ile Gly Arg Val Arg Lys		
2625	2630	2635
2640		
Leu Ile Ala Gln Ala Arg Ser Ala Ala Ser Lys Val Lys Val Ser Met		
2645	2650	2655
Lys Phe Asn Gly Arg Ser Gly Val Arg Leu Arg Pro Pro Arg Asp Leu		
2660	2665	2670
Ala Asp Leu Ala Ala Tyr Thr Ala Leu Lys Phe His Ile Gln Ser Pro		

2675	2680	2685
Val Pro Ala Pro Glu Pro Gly Lys Asn Thr Gly Asp His Phe Val Leu		
2690	2695	2700
Tyr Met Gly Ser Arg Gln Ala Thr Gly Asp Tyr Met Gly Val Ser Leu		
2705	2710	2715
Arg Asn Gln Lys Val His Trp Val Tyr Arg Leu Gly Lys Ala Gly Pro		
2725	2730	2735
Thr Thr Leu Ser Ile Asp Glu Asn Ile Gly Glu Gln Phe Ala Ala Val		
2740	2745	2750
Ser Ile Asp Arg Thr Leu Gln Phe Gly His Met Ser Val Thr Val Glu		
2755	2760	2765
Lys Gln Met Val His Glu Ile Lys Gly Asp Thr Val Ala Pro Gly Ser		
2770	2775	2780
Glu Gly Leu Leu Asn Leu His Pro Asp Asp Phe Val Phe Tyr Val Gly		
2785	2790	2795
2800		
Gly Tyr Pro Ser Asn Phe Thr Pro Pro Glu Pro Leu Arg Phe Pro Gly		
2805	2810	2815
Tyr Leu Gly Cys Ile Glu Met Glu Thr Leu Asn Glu Glu Val Val Ser		
2820	2825	2830
Leu Tyr Asn Phe Glu Gln Thr Phe Met Leu Asp Thr Ala Val Asp Lys		
2835	2840	2845
Pro Cys Ala Arg Ser Lys Ala Thr Gly Asp Pro Trp Leu Thr Asp Gly		
2850	2855	2860
Ser Tyr Leu Asp Gly Ser Gly Phe Ala Arg Ile Ser Phe Glu Lys Gln		
2865	2870	2875
2880		
Phe Ser Asn Thr Lys Arg Phe Asp Gln Glu Leu Arg Leu Val Ser Tyr		
2885	2890	2895
Asn Gly Ile Ile Phe Phe Leu Lys Gln Glu Ser Gln Phe Leu Cys Leu		
2900	2905	2910
Ala Val Gln Glu Gly Thr Leu Val Leu Phe Tyr Asp Phe Gly Ser Gly		
2915	2920	2925
Leu Lys Lys Ala Asp Pro Leu Gln Pro Pro Gln Ala Leu Thr Ala Ala		
2930	2935	2940
Ser Lys Ala Ile Gln Val Phe Leu Leu Ala Gly Asn Arg Lys Arg Val		
2945	2950	2955
2960		
Leu Val Arg Val Glu Arg Ala Thr Val Phe Ser Val Asp Gln Asp Asn		
2965	2970	2975
Met Leu Glu Met Ala Asp Ala Tyr Tyr Leu Gly Gly Val Pro Pro Glu		

2980	2985	2990
Gln Leu Pro Leu Ser Leu Arg Gln Leu Phe Pro Ser Gly Gly Ser Val		
2995	3000	3005
Arg Gly Cys Ile Lys Gly Ile Lys Ala Leu Gly Lys Tyr Val Asp Leu		
3010	3015	3020
Lys Arg Leu Asn Thr Thr Gly Ile Ser Phe Gly Cys Thr Ala Asp Leu		
3025	3030	3035
Leu Val Gly Arg Thr Met Thr Phe His Gly His Gly Phe Leu Pro Leu		
3045	3050	3055
Ala Leu Pro Asp Val Ala Pro Ile Thr Glu Val Val Tyr Ser Gly Phe		
3060	3065	3070
Gly Phe Arg Gly Thr Gln Asp Asn Asn Leu Leu Tyr Tyr Arg Thr Ser		
3075	3080	3085
Pro Asp Gly Pro Tyr Gln Val Ser Leu Arg Glu Gly His Val Thr Leu		
3090	3095	3100
Arg Phe Met Asn Gln Glu Val Glu Thr Gln Arg Val Phe Ala Asp Gly		
3105	3110	3115
Ala Pro His Tyr Val Ala Phe Tyr Ser Asn Val Thr Gly Val Trp Leu		
3125	3130	3135
Tyr Val Asp Asp Gln Leu Gln Leu Val Lys Ser His Glu Arg Thr Thr		
3140	3145	3150
Pro Met Leu Gln Leu Gln Pro Glu Glu Pro Ser Arg Leu Leu Leu Gly		
3155	3160	3165
Gly Leu Pro Val Ser Gly Thr Phe His Asn Phe Ser Gly Cys Ile Ser		
3170	3175	3180
Asn Val Phe Val Gln Arg Leu Arg Gly Pro Gln Arg Val Phe Asp Leu		
3185	3190	3195
3200		
His Gln Asn Met Gly Ser Val Asn Val Ser Val Gly Cys Thr Pro Ala		
3205	3210	3215
Gln Leu Ile Glu Thr Ser Arg Ala Thr Ala Gln Lys Val Ser Arg Arg		
3220	3225	3230
Ser Arg Gln Pro Ser Gln Asp Leu Ala Cys Thr Thr Pro Trp Leu Pro		
3235	3240	
3245		
Gly Thr Ile Gln Asp Ala Tyr Gln Phe Gly Gly Pro Leu Pro Ser Tyr		
3250	3255	
3260		
Leu Gln Phe Val Gly Ile Ser Pro Ser His Arg Asn Arg Leu His Leu		
3265	3270	
3275		
3280		
Ser Met Leu Val Arg Pro His Ala Ala Ser Gln Gly Leu Leu Leu Ser		

3285	3290	3295
Thr Ala Pro Met Ser Gly Arg Ser Pro Ser Leu Val Leu Phe Leu Asn		
3300	3305	3310
His Gly His Phe Val Ala Gln Thr Glu Gly Pro Gly Pro Arg Leu Gln		
3315	3320	3325
Val Gln Ser Arg Gln His Ser Arg Ala Gly Gln Trp His Arg Val Ser		
3330	3335	3340
Val Arg Trp Gly Met Gln Gln Ile Gln Leu Val Val Asp Gly Ser Gln		
3345	3350	3355
3360		
Thr Trp Ser Gln Lys Ala Leu His His Arg Val Pro Arg Ala Glu Arg		
3365	3370	3375
Pro Gln Pro Tyr Thr Leu Ser Val Gly Gly Leu Pro Ala Ser Ser Tyr		
3380	3385	3390
Ser Ser Lys Leu Pro Val Ser Val Gly Phe Ser Gly Cys Leu Lys Lys		
3395	3400	3405
Leu Gln Leu Asp Lys Gln Pro Leu Arg Thr Pro Thr Gln Met Val Gly		
3410	3415	3420
Val Thr Pro Cys Val Ser Gly Pro Leu Glu Asp Gly Leu Phe Phe Pro		
3425	3430	3435
3440		
Gly Ser Glu Gly Val Val Thr Leu Glu Leu Pro Lys Ala Lys Met Pro		
3445	3450	3455
Tyr Val Ser Leu Glu Leu Glu Met Arg Pro Leu Ala Ala Ala Gly Leu		
3460	3465	3470
Ile Phe His Leu Gly Gln Ala Leu Ala Thr Pro Tyr Met Gln Leu Lys		
3475	3480	3485
Val Leu Thr Glu Gln Val Leu Leu Gln Ala Asn Asp Gly Ala Gly Glu		
3490	3495	3500
Phe Ser Thr Trp Val Thr Tyr Pro Lys Leu Cys Asp Gly Arg Trp His		
3505	3510	3515
3520		
Arg Val Ala Val Ile Met Gly Arg Asp Thr Leu Arg Leu Glu Val Asp		
3525	3530	3535
Thr Gln Ser Asn His Thr Thr Gly Arg Leu Pro Glu Ser Leu Ala Gly		
3540	3545	3550
Ser Pro Ala Leu Leu His Leu Gly Ser Leu Pro Lys Ser Ser Thr Ala		
3555	3560	3565
Arg Pro Glu Leu Pro Ala Tyr Arg Gly Cys Leu Arg Lys Leu Leu Ile		
3570	3575	3580
Asn Gly Ala Pro Val Asn Val Thr Ala Ser Val Gln Ile Gln Gly Ala		

3585	3590	3595	3600
Val Gly Met Arg Gly Cys Pro Ser Gly Thr Leu Ala Leu Ser Lys Gln			
3605	3610	3615	
Gly Lys Ala Leu Thr Gln Arg His Ala Lys Pro Ser Val Ser Pro Leu			
3620	3625	3630	
Leu Trp His			
3635			
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<211> 3712			
<212> PRT			
<213> Drosophila melanogaster			
<400> 48			
Met Gly His Gly Val Ala Ser Ile Gly Ala Leu Leu Val Ile Leu Ala			
1	5	10	15
Ile Ser Tyr Cys Gln Ala Glu Leu Thr Pro Pro Tyr Phe Asn Leu Ala			
20	25	30	
Thr Gly Arg Lys Ile Tyr Ala Thr Ala Thr Cys Gly Pro Asp Thr Asp			
35	40	45	
Gly Pro Glu Leu Tyr Cys Lys Leu Val Gly Ala Asn Thr Glu His Asp			
50	55	60	
His Ile Asp Tyr Ser Val Ile Gln Gly Gln Val Cys Asp Tyr Cys Asp			
65	70	75	80
Pro Thr Val Pro Glu Arg Asn His Pro Pro Glu Asn Ala Ile Asp Gly			
85	90	95	
Thr Glu Ala Trp Trp Gln Ser Pro Pro Leu Ser Arg Gly Met Lys Phe			
100	105	110	
Asn Glu Val Asn Leu Thr Ile Asn Phe Glu Gln Glu Phe His Val Ala			
115	120	125	
Tyr Leu Phe Ile Arg Met Gly Asn Ser Pro Arg Pro Gly Leu Trp Thr			
130	135	140	
Leu Glu Lys Ser Thr Asp Tyr Gly Lys Thr Trp Thr Pro Trp Gln His			
145	150	155	160
Phe Ser Asp Thr Pro Ala Asp Cys Glu Thr Tyr Phe Gly Lys Asp Thr			
165	170	175	
Tyr Lys Pro Ile Thr Arg Asp Asp Asp Val Ile Cys Thr Thr Glu Tyr			
180	185	190	
Ser Lys Ile Val Pro Leu Glu Asn Gly Glu Ile Pro Val Met Leu Leu			
195	200	205	

Asn Glu Arg Pro Ser Ser Thr Asn Tyr Phe Asn Ser Thr Val Leu Gln
 210 215 220
 Glu Trp Thr Arg Ala Thr Asn Val Arg Ile Arg Leu Leu Arg Thr Lys
 225 230 235 240
 Asn Leu Leu Gly His Leu Met Ser Val Ala Arg Gln Asp Pro Thr Val
 245 250 255
 Thr Arg Arg Tyr Phe Tyr Ser Ile Lys Asp Ile Ser Ile Gly Gly Arg
 260 265 270
 Cys Met Cys Asn Gly His Ala Asp Thr Cys Asp Val Lys Asp Pro Lys
 275 280 285
 Ser Pro Val Arg Ile Leu Ala Cys Arg Cys Gln His His Thr Cys Gly
 290 295 300
 Ile Gln Cys Asn Glu Cys Cys Pro Gly Phe Glu Gln Lys Lys Trp Arg
 305 310 315 320
 Gln Asn Thr Asn Ala Arg Pro Phe Asn Cys Glu Pro Cys Asn Cys His
 325 330 335
 Gly His Ser Asn Glu Cys Lys Tyr Asp Glu Glu Val Asn Arg Lys Gly
 340 345 350
 Leu Ser Leu Asp Ile His Gly His Tyr Asp Gly Gly Val Cys Gln
 355 360 365
 Asn Cys Gln His Asn Thr Val Gly Ile Asn Cys Asn Lys Cys Lys Pro
 370 375 380
 Lys Tyr Tyr Arg Pro Lys Gly Lys His Trp Asn Glu Thr Asp Val Cys
 385 390 395 400
 Ser Pro Cys Gln Cys Asp Tyr Phe Phe Ser Thr Gly His Cys Glu Glu
 405 410 415
 Glu Thr Gly Asn Cys Glu Cys Arg Ala Ala Phe Gln Pro Pro Ser Cys
 420 425 430
 Asp Ser Cys Ala Tyr Gly Tyr Gly Tyr Pro Asn Cys Arg Glu Cys
 435 440 445
 Glu Cys Asn Leu Asn Gly Thr Asn Gly Tyr His Cys Glu Ala Glu Ser
 450 455 460
 Gly Gln Gln Cys Pro Cys Lys Ile Asn Phe Ala Gly Ala Tyr Cys Lys
 465 470 475 480
 Gln Cys Ala Glu Gly Tyr Gly Phe Pro Glu Cys Lys Ala Cys Glu
 485 490 495
 Cys Asn Lys Ile Gly Ser Ile Thr Asn Asp Cys Asn Val Thr Thr Gly
 500 505 510

Glu Cys Lys Cys Leu Thr Asn Phe Gly Gly Asp Asn Cys Glu Arg Cys
 515 520 525
 Lys His Gly Tyr Phe Asn Tyr Pro Thr Cys Ser Tyr Cys Asp Cys Asp
 530 535 540
 Asn Gln Gly Thr Glu Ser Glu Ile Cys Asn Lys Gln Ser Gly Gln Cys
 545 550 555 560
 Ile Cys Arg Glu Gly Phe Gly Gly Pro Arg Cys Asp Gln Cys Leu Pro
 565 570 575
 Gly Phe Tyr Asn Tyr Pro Asp Cys Lys Pro Cys Asn Cys Ser Ser Thr
 580 585 590
 Gly Ser Ser Ala Ile Thr Cys Asp Asn Thr Gly Lys Cys Asn Cys Leu
 595 600 605
 Asn Asn Phe Ala Gly Lys Gln Cys Thr Leu Cys Thr Ala Gly Tyr Tyr
 610 615 620
 Ser Tyr Pro Asp Cys Leu Pro Cys His Cys Asp Ser His Gly Ser Gln
 625 630 635 640
 Gly Val Ser Cys Asn Ser Asp Gly Gln Cys Leu Cys Gln Pro Asn Phe
 645 650 655
 Asp Gly Arg Gln Cys Asp Ser Cys Lys Glu Gly Phe Tyr Asn Phe Pro
 660 665 670
 Ser Cys Glu Asp Cys Asn Cys Asp Pro Ala Gly Val Ile Asp Lys Phe
 675 680 685
 Ala Gly Cys Gly Ser Val Pro Val Gly Glu Leu Cys Lys Cys Lys Glu
 690 695 700
 Arg Val Thr Gly Arg Ile Cys Asn Glu Cys Lys Pro Leu Tyr Trp Asn
 705 710 715 720
 Leu Asn Ile Ser Asn Thr Glu Gly Cys Glu Ile Cys Asp Cys Trp Thr
 725 730 735
 Asp Gly Thr Ile Ser Ala Leu Asp Thr Cys Thr Ser Lys Ser Gly Gln
 740 745 750
 Cys Pro Cys Lys Pro His Thr Gln Gly Arg Arg Cys Gln Glu Cys Arg
 755 760 765
 Asp Gly Thr Phe Asp Leu Asp Ser Ala Ser Leu Phe Gly Cys Lys Asp
 770 775 780
 Cys Ser Cys Asp Val Gly Gly Ser Trp Gln Ser Val Cys Asp Lys Ile
 785 790 795 800
 Ser Gly Gln Cys Lys Cys His Pro Arg Ile Thr Gly Leu Ala Cys Thr
 805 810 815

Gln Pro Leu Thr Thr His Phe Phe Pro Thr Leu His Gln Phe Gln Tyr
 820 825 830
 Glu Tyr Glu Asp Gly Ser Leu Pro Ser Gly Thr Gln Val Arg Tyr Asp
 835 840 845
 Tyr Asp Glu Ala Ala Phe Pro Gly Phe Ser Ser Lys Gly Tyr Val Val
 850 855 860
 Phe Asn Ala Ile Gln Asn Asp Val Arg Asn Glu Val Asn Val Phe Lys
 865 870 875 880
 Ser Ser Leu Tyr Arg Ile Val Leu Arg Tyr Val Asn Pro Asn Ala Glu
 885 890 895
 Asn Val Thr Ala Thr Ile Ser Val Thr Ser Asp Asn Pro Leu Glu Val
 900 905 910
 Asp Gln His Val Lys Val Leu Leu Gln Pro Thr Ser Glu Pro Gln Phe
 915 920 925
 Val Thr Val Ala Gly Pro Leu Gly Val Lys Pro Ser Ala Ile Val Leu
 930 935 940
 Asp Pro Gly Arg Tyr Val Phe Thr Thr Lys Ala Asn Lys Asn Val Met
 945 950 955 960
 Leu Asp Tyr Phe Val Leu Leu Pro Ala Ala Tyr Tyr Glu Ala Gly Ile
 965 970 975
 Leu Thr Arg His Ile Ser Asn Pro Cys Glu Leu Gly Asn Met Glu Leu
 980 985 990
 Cys Arg His Tyr Lys Tyr Ala Ser Val Glu Val Phe Ser Pro Ala Ala
 995 1000 1005
 Thr Pro Phe Val Ile Gly Glu Asn Ser Lys Pro Thr Asn Pro Val Glu
 1010 1015 1020
 Thr Tyr Thr Asp Pro Glu His Leu Gln Ile Val Ser His Val Gly Asp
 1025 1030 1035 1040
 Ile Pro Val Leu Ser Gly Ser Gln Asn Glu Leu His Tyr Ile Val Asp
 1045 1050 1055
 Val Pro Arg Ser Gly Arg Tyr Ile Phe Val Ile Asp Tyr Ile Ser Asp
 1060 1065 1070
 Arg Asn Phe Pro Asp Ser Tyr Tyr Ile Asn Leu Lys Leu Lys Asp Asn
 1075 1080 1085
 Pro Asp Ser Glu Thr Ser Val Leu Leu Tyr Pro Cys Leu Tyr Ser Thr
 1090 1095 1100
 Ile Cys Arg Thr Ser Val Asn Glu Asp Gly Met Glu Lys Ser Phe Tyr
 1105 1110 1115 1120

Ile Asn Lys Glu Asp Leu Gln Pro Val Ile Ile Ser Ala Asp Ile Glu
 1125 1130 1135
 Asp Gly Ser Arg Phe Pro Ile Ile Ser Val Thr Ala Ile Pro Val Asp
 1140 1145 1150
 Gln Trp Ser Ile Asp Tyr Ile Asn Pro Ser Pro Val Cys Val Ile His
 1155 1160 1165
 Asp Gln Gln Cys Ala Thr Pro Lys Phe Arg Ser Val Pro Asp Ser Lys
 1170 1175 1180
 Lys Ile Glu Phe Glu Thr Asp His Glu Asp Arg Ile Ala Thr Asn Lys
 1185 1190 1195 1200
 Pro Pro Tyr Ala Ser Leu Asp Glu Arg Val Lys Leu Val His Leu Asp
 1205 1210 1215
 Ser Gln Asn Glu Ala Thr Ile Val Ile Glu Ser Lys Val Asp Ala Thr
 1220 1225 1230
 Lys Pro Asn Leu Phe Val Ile Leu Val Lys Tyr Tyr Gln Pro Ser His
 1235 1240 1245
 Pro Lys Tyr Gln Val Tyr Tyr Thr Leu Thr Ala Gly Lys Asn Gln Tyr
 1250 1255 1260
 Asp Gly Lys Phe Asp Ile Gln His Cys Pro Ser Ser Gly Cys Arg
 1265 1270 1275 1280
 Gly Val Ile Arg Pro Ala Gly Glu Gly Ser Phe Glu Ile Asp Asp Glu
 1285 1290 1295
 Phe Lys Phe Thr Ile Thr Thr Asp Arg Ser Gln Ser Val Trp Leu Asp
 1300 1305 1310
 Tyr Leu Val Val Val Pro Leu Lys Gln Tyr Asn Asp Asp Leu Leu Val
 1315 1320 1325
 Glu Glu Thr Phe Asp Gln Thr Lys Glu Phe Ile Gln Asn Cys Gly His
 1330 1335 1340
 Asp His Phe His Ile Thr His Asn Ala Ser Asp Phe Cys Lys Ser
 1345 1350 1355 1360
 Val Phe Ser Leu Thr Ala Asp Tyr Asn Ser Gly Ala Leu Pro Cys Asn
 1365 1370 1375
 Cys Asp Tyr Ala Gly Ser Thr Ser Phe Glu Cys His Pro Phe Gly Gly
 1380 1385 1390
 Gln Cys Gln Cys Lys Pro Asn Val Ile Glu Arg Thr Cys Gly Arg Cys
 1395 1400 1405
 Arg Ser Arg Tyr Tyr Gly Phe Pro Asp Cys Lys Pro Cys Lys Cys Pro
 1410 1415 1420

Asn Ser Ala Met Cys Glu Pro Thr Thr Gly Glu Cys Met Cys Pro Pro
 1425 1430 1435 1440
 Asn Val Ile Gly Asp Leu Cys Glu Lys Cys Ala Pro Asn Thr Tyr Gly
 1445 1450 1455
 Phe His Gln Val Ile Gly Cys Glu Glu Cys Ala Cys Asn Pro Met Gly
 1460 1465 1470
 Ile Ala Asn Gly Asn Ser Gln Cys Asp Leu Phe Asn Gly Thr Cys Glu
 1475 1480 1485
 Cys Arg Gln Asn Ile Glu Gly Arg Ala Cys Asp Val Cys Ser Asn Gly
 1490 1495 1500
 Tyr Phe Asn Phe Pro His Cys Glu Gln Cys Ser Cys His Lys Pro Gly
 1505 1510 1515 1520
 Thr Glu Leu Glu Val Cys Asp Lys Ile Asp Gly Ala Cys Phe Cys Lys
 1525 1530 1535
 Lys Asn Val Val Gly Arg Asp Cys Asp Gln Cys Val Asp Gly Thr Tyr
 1540 1545 1550
 Asn Leu Gln Glu Ser Asn Pro Asp Gly Cys Thr Thr Cys Phe Cys Phe
 1555 1560 1565
 Gly Lys Thr Ser Arg Cys Asp Ser Ala Tyr Leu Arg Val Tyr Asn Val
 1570 1575 1580
 Ser Leu Leu Lys His Val Ser Ile Thr Thr Pro Glu Phe His Glu Glu
 1585 1590 1595 1600
 Ser Ile Lys Phe Asp Met Trp Pro Val Pro Ala Asp Glu Ile Leu Leu
 1605 1610 1615
 Asn Glu Thr Thr Leu Lys Ala Asp Phe Thr Leu Arg Glu Val Asn Asp
 1620 1625 1630
 Glu Arg Pro Ala Tyr Phe Gly Val Leu Asp Tyr Leu Leu Asn Gln Asn
 1635 1640 1645
 Asn His Ile Ser Ala Tyr Gly Gly Asp Leu Ala Tyr Thr Leu His Phe
 1650 1655 1660
 Thr Ser Gly Phe Asp Gly Lys Tyr Ile Val Ala Pro Asp Val Ile Leu
 1665 1670 1675 1680
 Phe Ser Glu His Asn Ala Leu Val His Thr Ser Tyr Glu Gln Pro Ser
 1685 1690 1695
 Arg Asn Glu Pro Phe Thr Asn Arg Val Asn Ile Val Glu Ser Asn Phe
 1700 1705 1710
 Gln Thr Ile Ser Gly Lys Pro Val Ser Arg Ala Asp Phe Met Met Val
 1715 1720 1725

Leu Arg Asp Leu Lys Val Ile Phe Ile Arg Ala Asn Tyr Trp Glu Gln
 1730 1735 1740
 Thr Leu Val Thr His Leu Ser Asp Val Tyr Leu Thr Leu Ala Asp Glu
 1745 1750 1755 1760
 Asp Ala Asp Gly Thr Gly Glu Tyr Gln Phe Leu Ala Val Glu Arg Cys
 1765 1770 1775
 Ser Cys Pro Pro Gly Tyr Ser Gly His Ser Cys Glu Asp Cys Ala Pro
 1780 1785 1790
 Gly Tyr Tyr Arg Asp Pro Ser Gly Pro Tyr Gly Gly Tyr Cys Ile Pro
 1795 1800 1805
 Cys Glu Cys Asn Gly His Ser Glu Thr Cys Asp Cys Ala Thr Gly Ile
 1810 1815 1820
 Cys Ser Lys Cys Gln His Gly Thr Glu Gly Asp His Cys Glu Arg Cys
 1825 1830 1835 1840
 Val Ser Gly Tyr Tyr Gly Asn Ala Thr Asn Gly Thr Pro Gly Asp Cys
 1845 1850 1855
 Met Ile Cys Ala Cys Pro Leu Pro Phe Asp Ser Asn Asn Phe Ala Thr
 1860 1865 1870
 Ser Cys Glu Ile Ser Glu Ser Gly Asp Gln Ile His Cys Glu Cys Lys
 1875 1880 1885
 Pro Gly Tyr Thr Gly Pro Arg Cys Glu Ser Cys Ala Asn Gly Phe Tyr
 1890 1895 1900
 Gly Glu Pro Glu Ser Ile Gly Gln Val Cys Lys Pro Cys Glu Cys Ser
 1905 1910 1915 1920
 Gly Asn Ile Asn Pro Glu Asp Gln Gly Ser Cys Asp Thr Arg Thr Gly
 1925 1930 1935
 Glu Cys Leu Arg Cys Leu Asn Asn Thr Phe Gly Ala Ala Cys Asn Leu
 1940 1945 1950
 Cys Ala Pro Gly Phe Tyr Gly Asp Ala Ile Lys Leu Lys Asn Cys Gln
 1955 1960 1965
 Ser Cys Asp Cys Asp Asp Leu Gly Thr Gln Thr Cys Asp Pro Phe Val
 1970 1975 1980
 Gly Val Cys Thr Cys His Glu Asn Val Ile Gly Asp Arg Cys Asp Arg
 1985 1990 1995 2000
 Cys Lys Pro Asp His Tyr Gly Phe Glu Ser Gly Val Gly Cys Arg Ala
 2005 2010 2015
 Cys Asp Cys Gly Ala Ala Ser Asn Ser Thr Gin Cys Asp Pro His Thr
 2020 2025 2030

Gly His Cys Ala Cys Lys Ser Gly Val Thr Gly Arg Gln Cys Asp Arg
2035 2040 2045

Cys Ala Val Asp His Trp Lys Tyr Glu Lys Asp Gly Cys Thr Pro Cys
2050 2055 2060

Asn Cys Asn Gln Gly Tyr Ser Arg Gly Phe Gly Cys Asn Pro Asn Thr
2065 2070 2075 2080

Gly Lys Cys Gln Cys Leu Pro Gly Val Ile Gly Asp Arg Cys Asp Ala
2085 2090 2095

Cys Pro Asn Arg Trp Val Leu Ile Lys Asp Glu Gly Cys Gln Glu Cys
2100 2105 2110

Asn Asn Cys His His Ala Leu Leu Asp Val Thr Asp Arg Met Arg Tyr
2115 2120 2125

Gln Ile Asp Ser Val Leu Glu Asp Phe Asn Ser Val Thr Leu Ala Phe
2130 2135 2140

Phe Thr Ser Gln Lys Leu Asn Tyr Tyr Asp Gln Leu Ala Asp Glu Leu
2145 2150 2155 2160

Glu Pro Lys Val Lys Leu Leu Asp Pro Asn Ser Val Asp Leu Ser Pro
2165 2170 2175

Ser Lys Lys Ala Asn Ser Glu Leu Glu Ser Asp Ala Lys Ser Tyr Ala
2180 2185 2190

Lys Gln Val Asn Gln Thr Leu Ala Asn Ala Phe Asp Ile Arg Glu Arg
2195 2200 2205

Ser Ser Thr Thr Leu Gly Asn Ile Thr Val Ala Tyr Asp Glu Ala Val
2210 2215 2220

Lys Ser Ala Asp Gln Ala Lys Glu Ala Ile Ala Ser Val Glu Ala Leu
2225 2230 2235 2240

Ser Lys Asn Leu Glu Ala Ala Ser Thr Lys Ile Asp Ala Ala Leu
2245 2250 2255

Glu Gln Ala Gln His Ile Leu Gly Gln Ile Asn Gly Thr Ser Ile Glu
2260 2265 2270

Leu Thr Pro Asn Glu Gln Val Leu Glu Lys Ala Arg Lys Leu Tyr Glu
2275 2280 2285

Glu Val Asn Thr Leu Val Leu Pro Ile Lys Ala Gln Asn Lys Ser Leu
2290 2295 2300

Asn Ala Leu Lys Asn Asp Ile Gly Glu Phe Ser Asp His Leu Glu Asp
2305 2310 2315 2320

Leu Phe Asn Trp Ser Glu Ala Ser Gln Ala Lys Ser Ala Asp Val Glu
2325 2330 2335

Arg Arg Asn Val Ala Asn Gln Lys Ala Phe Asp Asn Ser Lys Phe Asp
 2340 2345 2350
 Thr Val Ser Glu Gln Lys Leu Gln Ala Glu Lys Asn Ile Lys Asp Ala
 2355 2360 2365
 Gly Asn Phe Leu Ile Asn Gly Asp Leu Thr Leu Asn Gln Ile Asn Gln
 2370 2375 2380
 Lys Leu Asp Asn Leu Arg Asp Ala Leu Asn Glu Leu Asn Ser Phe Asn
 2385 2390 2395 2400
 Lys Asn Val Asp Glu Glu Leu Pro Val Arg Glu Asp Gln His Lys Glu
 2405 2410 2415
 Ala Asp Ala Leu Thr Asp Gln Ala Glu Gln Lys Ala Ala Glu Leu Ala
 2420 2425 2430
 Ile Lys Ala Gln Asp Leu Ala Ala Gln Tyr Thr Asp Met Thr Ala Ser
 2435 2440 2445
 Ala Glu Pro Ala Ile Lys Ala Ala Thr Ala Tyr Ser Gly Ile Val Glu
 2450 2455 2460
 Ala Val Glu Ala Ala Gln Lys Leu Ser Gln Asp Ala Ile Ser Ala Ala
 2465 2470 2475 2480
 Gly Asn Ala Thr Asp Lys Thr Asp Gly Ile Glu Glu Arg Ala His Leu
 2485 2490 2495
 Ala Asp Thr Gly Ser Thr Asp Leu Leu Gln Arg Ala Arg Gln Ser Leu
 2500 2505 2510
 Gln Lys Val Gln Asp Asp Leu Glu Pro Arg Leu Asn Ala Ser Ala Gly
 2515 2520 2525
 Lys Val Gln Lys Ile Ser Ala Val Asn Asn Ala Thr Glu His Gln Leu
 2530 2535 2540
 Lys Asp Ile Asn Lys Leu Ile Asp Gln Leu Pro Ala Glu Ser Gln Arg
 2545 2550 2555 2560
 Asp Met Trp Lys Asn Ser Asn Ala Asn Ala Ser Asp Ala Leu Glu Ile
 2565 2570 2575
 Leu Lys Asn Val Leu Glu Ile Leu Glu Pro Val Ser Val Gln Thr Pro
 2580 2585 2590
 Lys Glu Leu Glu Lys Ala His Gly Ile Asn Arg Asp Leu Asp Leu Thr
 2595 2600 2605
 Asn Lys Asp Val Ser Gln Ala Asn Lys Gln Leu Asp Asp Val Glu Gly
 2610 2615 2620
 Ser Val Ser Lys Leu Asn Glu Leu Ala Glu Asp Ile Glu Glu Gln Gln
 2625 2630 2635 2640

His Arg Val Gly Ser Gln Ser Arg Gln Leu Gly Gln Glu Ile Glu Asn
 2645 2650 2655
 Leu Lys Ala Gln Val Glu Ala Ala Arg Gln Leu Ala Asn Ser Ile Lys
 2660 2665 2670
 Val Gly Val Asn Phe Lys Pro Ser Thr Ile Leu Glu Leu Lys Thr Pro
 2675 2680 2685
 Glu Lys Thr Lys Leu Leu Ala Thr Arg Thr Asn Leu Ser Thr Tyr Phe
 2690 2695 2700
 Arg Thr Thr Glu Pro Ser Gly Phe Leu Leu Tyr Leu Gly Asn Asp Asn
 2705 2710 2715 2720
 Lys Thr Ala Gln Lys Asn Asn Asp Phe Val Ala Val Glu Ile Val Asn
 2725 2730 2735
 Gly Tyr Pro Ile Leu Thr Ile Asp Leu Gly Asn Gly Pro Glu Arg Ile
 2740 2745 2750
 Thr Ser Asp Lys Tyr Val Ala Asp Gly Arg Trp Tyr Gln Ala Val Val
 2755 2760 2765
 Asp Arg Met Gly Pro Asn Ala Lys Leu Thr Ile Arg Glu Glu Leu Pro
 2770 2775 2780
 Asn Gly Asp Val Val Glu His Ser Lys Ser Gly Tyr Leu Glu Gly Ser
 2785 2790 2795 2800
 Gln Asn Ile Leu His Val Asp Lys Asn Ser Arg Leu Phe Val Gly Gly
 2805 2810 2815
 Tyr Pro Gly Ile Ser Asp Phe Asn Ala Pro Pro Asp Leu Thr Thr Asn
 2820 2825 2830
 Ser Phe Ser Gly Asp Ile Glu Asp Leu Lys Ile Gly Asp Glu Ser Val
 2835 2840 2845
 Gly Leu Trp Asn Phe Val Tyr Gly Asp Asn Asp Gln Gly Ala Arg
 2850 2855 2860
 Glu Arg Asp Val Leu Leu Glu Lys Lys Pro Val Thr Gly Leu Arg
 2865 2870 2875 2880
 Phe Lys Gly Asn Gly Tyr Val Gln Leu Asn Ala Thr Ser Asn Leu Lys
 2885 2890 2895
 Ser Arg Ser Ser Ile Gln Phe Ser Phe Lys Ala Asp Lys Asp Thr Ser
 2900 2905 2910
 Asn Gly Leu Leu Phe Phe Tyr Gly Arg Asp Lys His Tyr Met Ser Ile
 2915 2920 2925
 Glu Met Ile Asp Gly Ala Ile Phe Phe Asn Ile Ser Leu Gly Glu Gly
 2930 2935 2940

Gly Gly Val Gln Ser Gly Ser Gln Asp Arg Tyr Asn Asp Asn Gln Trp
 2945 2950 2955 2960
 His Lys Val Gln Ala Glu Arg Glu Asn Arg Asn Gly Leu Leu Lys Val
 2965 2970 2975
 Asp Asp Ile Val Ile Ser Arg Thr Asn Ala Pro Leu Glu Ala Asp Leu
 2980 2985 2990
 Glu Leu Pro Lys Leu Arg Arg Leu Tyr Phe Gly Gly His Pro Arg Arg
 2995 3000 3005
 Leu Asn Thr Ser Ile Ser Leu Gln Pro Asn Phe Asp Gly Cys Ile Asp
 3010 3015 3020
 Asn Val Val Ile Asn Gln Gly Val Val Asp Leu Thr Glu Tyr Val Thr
 3025 3030 3035 3040
 Gly Gly Gly Val Glu Glu Gly Cys Ser Ala Lys Phe Ser Thr Val Val
 3045 3050 3055
 Ser Tyr Ala Pro His Glu Tyr Gly Phe Leu Arg Met Asn Asn Val Ser
 3060 3065 3070
 Ser Asp Asn Asn Leu His Val Val Leu His Phe Lys Thr Thr Gln Pro
 3075 3080 3085
 Asn Gly Val Leu Phe Tyr Ala Ala Asn His Asp Gln Ser Ser Thr Ile
 3090 3095 3100
 Gly Leu Ser Leu Gln Asp Gly Leu Leu Lys Leu Asn Ser Met Gly Ser
 3105 3110 3115 3120
 Gln Leu Val Ile Asp Asp Arg Ile Leu Asn Asp Gly Glu Asp His Val
 3125 3130 3135
 Val Thr Val Gln His Thr Gln Gly Glu Leu Arg Leu Thr Val Asp Asp
 3140 3145 3150
 Val Asp Asn Lys Arg Leu Gly Ser Pro Gln Pro Leu Ile Leu Glu Gly
 3155 3160 3165
 Gly Asp Ile Phe Phe Ala Gly Leu Pro Asp Asn Tyr Arg Thr Pro Arg
 3170 3175 3180
 Asn Ala Leu Ala Ser Leu Ala Tyr Phe Val Gly Cys Ile Ser Asp Val
 3185 3190 3195 3200
 Thr Val Asn Glu Glu Ile Ile Asn Phe Ala Asn Ser Ala Glu Lys Lys
 3205 3210 3215
 Asn Gly Asn Ile Asn Gly Cys Pro Pro His Val Leu Ala Tyr Glu Pro
 3220 3225 3230
 Ser Leu Val Pro Ser Tyr Tyr Pro Ser Gly Asp Asn Glu Val Glu Ser
 3235 3240 3245

Pro Trp Ser Asn Ala Asp Thr Leu Pro Pro Leu Lys Pro Asp Ile Glu
 3250 3255 3260

 Ser Thr Leu Pro Pro Thr Thr Pro Thr Thr Thr Thr Thr Thr Thr Thr
 3265 3270 3275 3280

 Thr Thr Thr Ser Thr Thr Thr Ser Thr Thr Thr Thr Thr Thr Thr Thr
 3285 3290 3295

 Pro Ser Pro Ile Val Ile Asp Glu Glu Lys Glu Ile Glu Ala Lys Thr
 3300 3305 3310

 Pro Gln Lys Ile Leu Thr Thr Arg Pro Pro Ala Lys Leu Asn Leu Pro
 3315 3320 3325

 Ser Asp Glu Arg Cys Lys Leu Pro Glu Gln Pro Asn Phe Asp Val Asp
 3330 3335 3340

 Phe Thr Glu Ala Gly Tyr Arg Phe Tyr Gly Leu Arg Glu Gln Arg Leu
 3345 3350 3355 3360

 Gln Ile Asn Ser Leu Pro Val Lys Val Arg Arg His His Asp Ile Gly
 3365 3370 3375

 Ile Ser Phe Arg Thr Glu Arg Pro Asn Gly Leu Leu Ile Tyr Ala Gly
 3380 3385 3390

 Ser Lys Gln Arg Asp Asp Phe Ile Ala Val Tyr Leu Leu Asp Gly Arg
 3395 3400 3405

 Val Thr Tyr Glu Ile Arg Val Gly Ala Gln Leu Gln Ala Lys Ile Thr
 3410 3415 3420

 Thr Glu Ala Glu Leu Asn Asp Gly Thr Trp His Thr Val Glu Val Val
 3425 3430 3435 3440

 Arg Thr Gln Arg Lys Val Ser Leu Leu Ile Asp Lys Leu Glu Gln Pro
 3445 3450 3455

 Gly Ser Val Asp Leu Asn Ala Glu Arg Ser Ala Pro Val Leu Ala Val
 3460 3465 3470

 Glu Leu Pro Ile Tyr Leu Gly Gly Val Asn Lys Phe Leu Glu Ser Glu
 3475 3480 3485

 Val Lys Asn Leu Thr Asp Phe Lys Thr Glu Val Pro Tyr Phe Asn Gly
 3490 3495 3500

 Cys Leu Lys Asn Ile Lys Phe Asp Ala Met Asp Leu Glu Thr Pro Pro
 3505 3510 3515 3520

 Glu Glu Phe Gly Val Val Pro Cys Ser Glu Gln Val Glu Arg Gly Leu
 3525 3530 3535

 Phe Phe Asn Asn Gln Lys Ala Phe Val Lys Ile Phe Asp His Phe Asp
 3540 3545 3550

Val Gly Thr Glu Met Lys Ile Ser Phe Asp Phe Arg Pro Arg Asp Pro
 3555 3560 3565
 Asn Gly Leu Leu Phe Ser Val His Gly Lys Asn Ser Tyr Ala Ile Leu
 3570 3575 3580
 Glu Leu Val Asp Asn Thr Leu Tyr Phe Thr Val Lys Thr Asp Leu Lys
 3585 3590 3595 3600
 Asn Ile Val Ser Thr Asn Tyr Lys Leu Pro Asn Asn Glu Ser Phe Cys
 3605 3610 3615
 Asp Gly Lys Thr Arg Asn Val Gln Ala Ile Lys Ser Lys Phe Val Ile
 3620 3625 3630
 Asn Ile Ala Val Asp Phe Ile Ser Ser Asn Pro Gly Val Gly Asn Glu
 3635 3640 3645
 Gly Ser Val Ile Thr Arg Thr Asn Arg Pro Leu Phe Leu Gly Gly His
 3650 3655 3660
 Val Ala Phe Gln Arg Ala Pro Gly Ile Lys Thr Lys Lys Ser Phe Lys
 3665 3670 3675 3680
 Gly Cys Ile Ser Lys Val Glu Val Asn Gln Arg Met Ile Asn Ile Thr
 3685 3690 3695
 Pro Asn Met Val Val Gly Asp Ile Trp Gln Gly Tyr Cys Pro Leu Asn
 3700 3705 3710

<210> 49
 <211> 1634
 <212> PRT
 <213> Homo sapiens

<400> 49
 Met Ala Ala Gly Ala Ala Ala Arg Val Leu Val Asp Arg Pro Pro Arg
 1 5 10 15
 Ala Pro Ser Ala Thr Pro Arg Ala Asp Ser Ala Thr Ala Asp Gln Gly
 20 25 30
 Pro Trp Asp Pro Ser Ala Ala Ser Val Pro Leu Ala Thr Gly Gly Ser
 35 40 45
 Leu Ser Arg Ala Ala Gly Ala Ala Ser Ala Leu Gly Ala Ala Val Thr
 50 55 60
 Leu Thr Arg Ala Ala Ala Thr Ala Pro Arg Gly Ser Ala Gly Ser Ala
 65 70 75 80
 Ala Thr Pro Ala Ala Ser Ser Ile Arg Cys Leu Phe Gln Ala Gly Leu
 85 90 95

Trp Ala Thr Ala Ser Thr Val Lys Val Cys Asp His Cys Val Val Leu
100 105 110

Leu Leu Asp Asp Leu Glu Arg Ala Gly Ala Leu Leu Pro Ala Ile His
115 120 125

Glu Gln Leu Arg Gly Ile Asn Ala Ser Ser Met Ala Trp Ala Arg Leu
130 135 140

His Arg Leu Asn Ala Ser Ile Ala Asp Leu Gln Ser Gln Leu Arg Ser
145 150 155 160

Pro Leu Gly Pro Arg His Glu Thr Ala Gln Gln Leu Glu Val Leu Glu
165 170 175

Gln Gln Ser Thr Ser Leu Gly Gln Asp Ala Arg Arg Leu Gly Gly Gln
180 185 190

Ala Val Gly Thr Arg Asp Gln Ala Ser Gln Leu Leu Ala Gly Thr Glu
195 200 205

Ala Thr Leu Gly His Ala Lys Thr Leu Leu Ala Ala Ile Arg Ala Val
210 215 220

Asp Arg Thr Leu Ser Glu Leu Met Ser Gln Thr Gly His Leu Gly Leu
225 230 235 240

Ala Asn Ala Ser Ala Pro Ser Gly Glu Gln Leu Leu Arg Thr Leu Ala
245 250 255

Glu Val Glu Arg Leu Leu Trp Glu Met Arg Ala Arg Asp Leu Gly Ala
260 265 270

Pro Gln Ala Ala Ala Glu Ala Glu Leu Ala Ala Ala Gln Arg Leu Leu
275 280 285

Ala Arg Val Gln Glu Gln Leu Ser Ser Leu Trp Glu Glu Asn Gln Ala
290 295 300

Leu Ala Thr Gln Thr Arg Asp Arg Leu Ala Gln His Glu Ala Gly Leu
305 310 315 320

Met Asp Leu Arg Glu Ala Leu Asn Arg Ala Val Asp Ala Thr Arg Glu
325 330 335

Ala Gln Glu Leu Asn Ser Arg Asn Gln Glu Arg Leu Glu Glu Ala Leu
340 345 350

Gln Arg Lys Gln Glu Leu Ser Arg Asp Asn Ala Thr Leu Gln Ala Thr
355 360 365

Leu His Ala Ala Arg Asp Thr Leu Ala Ser Val Phe Arg Leu Leu His
370 375 380

Ser Leu Asp Gln Ala Lys Glu Glu Leu Glu Arg Leu Ala Ala Ser Leu
385 390 395 400

Asp Gly Ala Arg Thr Pro Leu Leu Gln Arg Met Gln Thr Phe Ser Pro
 405 410 415
 Ala Gly Ser Lys Leu Arg Leu Val Glu Ala Ala Glu Ala His Ala Gln
 420 425 430
 Gln Leu Gly Gln Leu Ala Leu Asn Leu Ser Ser Ile Ile Leu Asp Val
 435 440 445
 Asn Gln Asp Arg Leu Thr Gln Arg Ala Ile Glu Ala Ser Asn Ala Tyr
 450 455 460
 Ser Arg Ile Leu Gln Ala Val Gln Ala Ala Glu Asp Ala Ala Gly Gln
 465 470 475 480
 Ala Leu Gln Gln Ala Asp His Thr Trp Ala Thr Val Val Arg Gln Gly
 485 490 495
 Leu Val Asp Arg Ala Gln Gln Leu Leu Ala Asn Ser Thr Ala Leu Glu
 500 505 510
 Glu Ala Met Leu Gln Glu Gln Gln Arg Leu Gly Leu Val Trp Ala Ala
 515 520 525
 Leu Gln Gly Ala Arg Thr Gln Leu Arg Asp Val Arg Ala Lys Lys Asp
 530 535 540
 Gln Leu Glu Ala His Ile Gln Ala Ala Gln Ala Met Leu Ala Met Asp
 545 550 555 560
 Thr Asp Glu Thr Ser Lys Lys Ile Ala His Ala Lys Ala Val Ala Ala
 565 570 575
 Glu Ala Gln Asp Thr Ala Thr Arg Val Gln Ser Gln Leu Gln Ala Met
 580 585 590
 Gln Glu Asn Val Glu Arg Trp Gln Gly Gln Tyr Glu Gly Leu Arg Gly
 595 600 605
 Gln Asp Leu Gly Gln Ala Val Leu Asp Ala Gly His Ser Val Ser Thr
 610 615 620
 Leu Glu Lys Thr Leu Pro Gln Leu Leu Ala Lys Leu Ser Ile Leu Glu
 625 630 635 640
 Asn Arg Gly Val His Asn Ala Ser Leu Ala Leu Ser Ala Ser Ile Gly
 645 650 655
 Arg Val Arg Glu Leu Ile Ala Gln Ala Arg Gly Ala Ala Ser Lys Val
 660 665 670
 Lys Val Pro Met Lys Phe Asn Gly Arg Ser Gly Val Gln Leu Arg Thr
 675 680 685
 Pro Arg Asp Leu Ala Asp Leu Ala Ala Tyr Thr Ala Leu Lys Phe Tyr
 690 695 700

Leu Gln Gly Pro Glu Pro Glu Pro Gly Gln Gly Thr Glu Asp Arg Phe
 705 710 715 720
 Val Met Tyr Met Gly Ser Arg Gln Ala Thr Gly Asp Tyr Met Gly Val
 725 730 735
 Ser Leu Arg Asp Lys Lys Val His Trp Val Tyr Gln Leu Gly Glu Ala
 740 745 750
 Gly Pro Ala Val Leu Ser Ile Asp Glu Asp Ile Gly Glu Gln Phe Ala
 755 760 765
 Ala Val Ser Leu Asp Arg Thr Leu Gln Phe Gly His Met Ser Val Thr
 770 775 780
 Val Glu Arg Gln Met Ile Gln Glu Thr Lys Gly Asp Thr Val Ala Pro
 785 790 795 800
 Gly Ala Glu Gly Leu Leu Asn Leu Arg Pro Asp Asp Phe Val Phe Tyr
 805 810 815
 Val Gly Gly Tyr Pro Ser Thr Phe Thr Pro Pro Pro Leu Leu Arg Phe
 820 825 830
 Pro Gly Tyr Arg Gly Cys Ile Glu Met Asp Thr Leu Asn Glu Glu Val
 835 840 845
 Val Ser Leu Tyr Asn Phe Glu Arg Thr Phe Gln Leu Asp Thr Ala Val
 850 855 860
 Asp Arg Pro Cys Ala Arg Ser Lys Ser Thr Gly Asp Pro Trp Leu Thr
 865 870 875 880
 Asp Gly Ser Tyr Leu Asp Gly Thr Gly Phe Ala Arg Ile Ser Phe Asp
 885 890 895
 Ser Gln Ile Ser Thr Thr Lys Arg Phe Glu Gln Glu Leu Arg Leu Val
 900 905 910
 Ser Tyr Ser Gly Val Leu Phe Phe Leu Lys Gln Gln Ser Gln Phe Leu
 915 920 925
 Cys Leu Ala Val Gln Glu Gly Ser Leu Val Leu Leu Tyr Asp Phe Gly
 930 935 940
 Ala Gly Leu Lys Lys Ala Val Pro Leu Gln Pro Pro Pro Leu Thr
 945 950 955 960
 Ser Ala Ser Lys Ala Ile Gln Val Phe Leu Leu Gly Gly Ser Arg Lys
 965 970 975
 Arg Val Leu Val Arg Val Glu Arg Ala Thr Val Tyr Ser Val Glu Gln
 980 985 990
 Asp Asn Asp Leu Glu Leu Ala Asp Ala Tyr Tyr Leu Gly Gly Val Pro
 995 1000 1005

Pro Asp Gln Leu Pro Pro Ser Leu Arg Arg Leu Phe Pro Thr Gly Gly
 1010 1015 1020

Ser Val Arg Gly Cys Val Lys Gly Ile Lys Ala Leu Gly Lys Tyr Val
 1025 1030 1035 1040

Asp Leu Lys Arg Leu Asn Thr Thr Gly Val Ser Ala Gly Cys Thr Ala
 1045 1050 1055

Asp Leu Leu Val Gly Arg Ala Met Thr Phe His Gly His Gly Phe Leu
 1060 1065 1070

Arg Leu Ala Leu Ser Asn Val Ala Pro Leu Thr Gly Asn Val Tyr Ser
 1075 1080 1085

Gly Phe Gly Phe His Ser Ala Gln Asp Ser Ala Leu Leu Tyr Tyr Arg
 1090 1095 1100

Ala Ser Pro Asp Gly Leu Cys Gln Val Ser Leu Gln Gln Gly Arg Val
 1105 1110 1115 1120

Ser Leu Gln Leu Leu Arg Thr Glu Val Lys Thr Gln Ala Gly Phe Ala
 1125 1130 1135

Asp Gly Ala Pro His Tyr Val Ala Phe Tyr Ser Asn Ala Thr Gly Val
 1140 1145 1150

Trp Leu Tyr Val Asp Asp Gln Leu Gln Gln Met Lys Pro His Arg Gly
 1155 1160 1165

Pro Pro Pro Glu Leu Gln Pro Gln Pro Glu Gly Pro Pro Arg Leu Leu
 1170 1175 1180

Leu Gly Gly Leu Pro Glu Ser Gly Thr Ile Tyr Asn Phe Ser Gly Cys
 1185 1190 1195 1200

Ile Ser Asn Val Phe Val Gln Arg Leu Leu Gly Pro Gln Arg Val Phe
 1205 1210 1215

Asp Leu Gln Gln Asn Leu Gly Ser Val Asn Val Ser Thr Gly Cys Ala
 1220 1225 1230

Pro Ala Leu Gln Ala Gln Thr Pro Gly Leu Gly Pro Arg Gly Leu Gln
 1235 1240 1245

Ala Thr Ala Arg Lys Ala Ser Arg Arg Ser Arg Gln Pro Ala Arg His
 1250 1255 1260

Pro Ala Cys Met Leu Pro Pro His Leu Arg Thr Thr Arg Asp Ser Tyr
 1265 1270 1275 1280

Gln Phe Gly Gly Ser Leu Ser Ser His Leu Glu Phe Val Gly Ile Leu
 1285 1290 1295

Ala Arg His Arg Asn Trp Pro Ser Leu Ser Met His Val Leu Pro Arg
 1300 1305 1310

Ser Ser Arg Gly Leu Leu Leu Phe Thr Ala Arg Leu Arg Pro Gly Ser
1315 1320 1325

Pro Ser Leu Ala Leu Phe Leu Ser Asn Gly His Phe Val Ala Gln Met
1330 1335 1340

Glu Gly Leu Gly Thr Arg Leu Arg Ala Gln Ser Arg Gln Arg Ser Arg
1345 1350 1355 1360

Pro Gly Arg Trp His Lys Val Ser Val Arg Trp Glu Lys Asn Arg Ile
1365 1370 1375

Leu Leu Val Thr Asp Gly Ala Arg Ala Trp Ser Gln Glu Gly Pro His
1380 1385 1390

Arg Gln His Gln Gly Ala Glu His Pro Gln Pro His Thr Leu Phe Val
1395 1400 1405

Gly Gly Leu Pro Ala Ser Ser His Ser Ser Lys Leu Pro Val Thr Val
1410 1415 1420

Gly Phe Ser Gly Cys Val Lys Arg Leu Arg Leu His Gly Arg Pro Leu
1425 1430 1435 1440

Gly Ala Pro Thr Arg Met Ala Gly Val Thr Pro Cys Ile Leu Gly Pro
1445 1450 1455

Leu Glu Ala Gly Leu Phe Pro Gly Ser Gly Gly Val Ile Thr Leu
1460 1465 1470

Asp Leu Pro Gly Ala Thr Leu Pro Asp Val Gly Leu Glu Leu Glu Val
1475 1480 1485

Arg Pro Leu Ala Val Thr Gly Leu Ile Phe His Leu Gly Gln Ala Arg
1490 1495 1500

Thr Pro Pro Tyr Leu Gln Leu Gln Val Thr Glu Lys Gln Val Leu Leu
1505 1510 1515 1520

Arg Ala Asp Asp Gly Ala Gly Glu Phe Ser Thr Ser Val Thr Arg Pro
1525 1530 1535

Ser Val Leu Cys Asp Gly Gln Trp His Arg Leu Ala Val Met Lys Ser
1540 1545 1550

Gly Asn Val Leu Arg Leu Glu Val Asp Ala Gln Ser Asn His Thr Val
1555 1560 1565

Gly Pro Leu Leu Ala Ala Ala Gly Ala Pro Ala Pro Leu Tyr Leu
1570 1575 1580

Gly Gly Leu Pro Glu Pro Met Ala Val Gln Pro Trp Pro Pro Ala Tyr
1585 1590 1595 1600

Cys Gly Cys Met Arg Arg Leu Ala Val Asn Arg Ser Pro Val Ala Met
1605 1610 1615

Thr Arg Ser Val Glu Val His Gly Ala Val Gly Ala Ser Gly Cys Pro
1620 1625 1630

Ala Ala

<210> 50

<211> 953

<212> PRT

<213> Homo sapiens

<400> 50

Ser Gly Val Gln Leu Arg Thr Pro Arg Asp Leu Ala Asp Leu Ala Ala
1 5 10 15

Tyr Thr Ala Leu Lys Phe Tyr Leu Gln Gly Pro Glu Pro Glu Pro Gly
20 25 30

Gln Gly Thr Glu Asp Arg Phe Val Met Tyr Met Gly Ser Arg Gln Ala
35 40 45

Thr Gly Asp Tyr Met Gly Val Ser Leu Arg Asp Lys Lys Val His Trp
50 55 60

Val Tyr Gln Leu Gly Glu Ala Gly Pro Ala Val Leu Ser Ile Asp Glu
65 70 75 80

Asp Ile Gly Glu Gln Phe Ala Ala Val Ser Leu Asp Arg Thr Leu Gln
85 90 95

Phe Gly His Met Ser Val Thr Val Glu Arg Gln Met Ile Gln Glu Thr
100 105 110

Lys Gly Asp Thr Val Ala Pro Gly Ala Glu Gly Leu Leu Asn Leu Arg
115 120 125

Pro Asp Asp Phe Val Phe Tyr Val Gly Gly Tyr Pro Ser Thr Phe Thr
130 135 140

Pro Pro Pro Leu Leu Arg Phe Pro Gly Tyr Arg Gly Cys Ile Glu Met
145 150 155 160

Asp Thr Leu Asn Glu Glu Val Val Ser Leu Tyr Asn Phe Glu Arg Thr
165 170 175

Phe Gln Leu Asp Thr Ala Val Asp Arg Pro Cys Ala Arg Ser Lys Ser
180 185 190

Thr Gly Asp Pro Trp Leu Thr Asp Gly Ser Tyr Leu Asp Gly Thr Gly
195 200 205

Phe Ala Arg Ile Ser Phe Asp Ser Gln Ile Ser Thr Thr Lys Arg Phe
210 215 220

Glu Gln Glu Leu Arg Leu Val Ser Tyr Ser Gly Val Leu Phe Phe Leu

225	230	235	240
Lys Gln Gln Ser Gln Phe Leu Cys Leu Ala Val Gln Glu Gly Ser Leu			
245	250	255	
Val Leu Leu Tyr Asp Phe Gly Ala Gly Leu Lys Lys Ala Val Pro Leu			
260	265	270	
Gln Pro Pro Pro Pro Leu Thr Ser Ala Ser Lys Ala Ile Gln Val Phe			
275	280	285	
Leu Leu Gly Gly Ser Arg Lys Arg Val Leu Val Arg Val Glu Arg Ala			
290	295	300	
Thr Val Tyr Ser Val Glu Gln Asp Asn Asp Leu Glu Leu Ala Asp Ala			
305	310	315	320
Tyr Tyr Leu Gly Gly Val Pro Pro Asp Gln Leu Pro Pro Ser Leu Arg			
325	330	335	
Trp Leu Phe Pro Thr Gly Gly Ser Val Arg Gly Cys Val Lys Gly Ile			
340	345	350	
Lys Ala Leu Gly Lys Tyr Val Asp Leu Lys Arg Leu Asn Thr Thr Gly			
355	360	365	
Val Ser Ala Gly Cys Thr Ala Asp Leu Leu Val Gly Arg Ala Met Thr			
370	375	380	
Phe His Gly His Gly Phe Leu Arg Leu Ala Leu Ser Asn Val Ala Pro			
385	390	395	400
Leu Thr Gly Asn Val Tyr Ser Gly Phe Gly Phe His Ser Ala Gln Asp			
405	410	415	
Ser Ala Leu Leu Tyr Tyr Arg Ala Ser Pro Asp Gly Leu Cys Gln Val			
420	425	430	
Ser Leu Gln Gln Gly Arg Val Ser Leu Gln Leu Leu Arg Thr Glu Val			
435	440	445	
Lys Thr Gln Ala Gly Phe Ala Asp Gly Ala Pro His Tyr Val Ala Phe			
450	455	460	
Tyr Ser Asn Ala Thr Gly Val Trp Leu Tyr Val Asp Asp Gln Leu Gln			
465	470	475	480
Gln Met Lys Pro His Arg Gly Pro Pro Glu Leu Gln Pro Gln Pro			
485	490	495	
Glu Gly Pro Pro Arg Leu Leu Leu Gly Gly Leu Pro Glu Ser Gly Thr			
500	505	510	
Ile Tyr Asn Phe Ser Gly Cys Ile Ser Asn Val Phe Val Gln Arg Leu			
515	520	525	
Leu Gly Pro Gln Arg Val Phe Asp Leu Gln Gln Asn Leu Gly Ser Val			

530	535	540
Asn Val Ser Thr Gly Cys Ala Pro Ala Leu Gln Ala Gln Thr Pro Gly		
545	550	555
560		
Leu Gly Pro Arg Gly Leu Gln Ala Thr Ala Arg Lys Ala Ser Arg Arg		
565	570	575
Ser Arg Gln Pro Ala Arg His Pro Ala Cys Met Leu Pro Pro His Leu		
580	585	590
Arg Thr Thr Arg Asp Ser Tyr Gln Phe Gly Gly Ser Leu Ser Ser His		
595	600	605
Leu Glu Phe Val Gly Ile Leu Ala Arg His Arg Asn Trp Pro Ser Leu		
610	615	620
Ser Met His Val Leu Pro Arg Ser Ser Arg Gly Leu Leu Leu Phe Thr		
625	630	635
640		
Ala Arg Leu Arg Pro Gly Ser Pro Ser Leu Ala Leu Phe Leu Ser Asn		
645	650	655
Gly His Phe Val Ala Gln Met Glu Gly Leu Gly Thr Arg Leu Arg Ala		
660	665	670
Gln Ser Arg Gln Arg Ser Arg Pro Gly Arg Trp His Lys Val Ser Val		
675	680	685
Arg Trp Glu Lys Asn Arg Ile Leu Leu Val Thr Asp Gly Ala Arg Ala		
690	695	700
Trp Ser Gln Glu Gly Pro His Arg Gln His Gln Gly Ala Glu His Pro		
705	710	715
720		
Gln Pro His Thr Leu Phe Val Gly Gly Leu Pro Ala Ser Ser His Ser		
725	730	735
Ser Lys Leu Pro Val Thr Val Gly Phe Ser Gly Cys Val Lys Arg Leu		
740	745	750
Arg Leu His Gly Arg Pro Leu Gly Ala Pro Thr Arg Met Ala Gly Val		
755	760	765
Thr Pro Cys Ile Leu Gly Pro Leu Glu Ala Gly Leu Phe Phe Pro Gly		
770	775	780
Ser Gly Gly Val Ile Thr Leu Asp Leu Pro Gly Ala Thr Leu Pro Asp		
785	790	795
800		
Val Gly Leu Glu Leu Glu Val Arg Pro Leu Ala Val Thr Gly Leu Ile		
805	810	815
Phe His Leu Gly Gln Ala Arg Thr Pro Pro Tyr Leu Gln Leu Gln Val		
820	825	830
Thr Glu Lys Gln Val Leu Leu Arg Ala Asp Asp Gly Ala Gly Glu Phe		

835	840	845
Ser Thr Ser Val Thr Arg Pro Ser Val Leu Cys Asp Gly Gln Trp His		
850	855	860
Arg Leu Ala Val Met Lys Ser Gly Asn Val Leu Arg Leu Glu Val Asp		
865	870	875
Ala Gln Ser Asn His Thr Val Gly Pro Leu Leu Ala Ala Ala Gly		
885	890	895
Ala Pro Ala Pro Leu Tyr Leu Gly Gly Leu Pro Glu Pro Met Ala Val		
900	905	910
Gln Pro Trp Pro Pro Ala Tyr Cys Gly Cys Met Arg Arg Leu Ala Val		
915	920	925
Asn Arg Ser Pro Val Ala Met Thr Arg Ser Val Glu Val His Gly Ala		
930	935	940
Val Gly Ala Ser Gly Cys Pro Ala Ala		
945	950	

<210> 51
 <211> 3712
 <212> PRT
 <213> Drosophila melanogaster

<400> 51		
Met Gly His Gly Val Ala Ser Ile Gly Ala Leu Leu Val Ile Leu Ala		
1	5	10
Ile Ser Tyr Cys Gln Ala Glu Leu Thr Pro Pro Tyr Phe Asn Leu Ala		
20	25	30
Thr Gly Arg Lys Ile Tyr Ala Thr Ala Thr Cys Gly Gln Asp Thr Asp		
35	40	45
Gly Pro Glu Leu Tyr Cys Lys Leu Val Gly Ala Asn Thr Glu His Asp		
50	55	60
His Ile Asp Tyr Ser Val Ile Gln Gly Gln Val Cys Asp Tyr Cys Asp		
65	70	75
Pro Thr Val Pro Glu Arg Asn His Pro Pro Glu Asn Ala Ile Asp Gly		
85	90	95
Thr Glu Ala Trp Trp Gln Ser Pro Pro Leu Ser Arg Gly Met Lys Phe		
100	105	110
Asn Glu Val Asn Leu Thr Ile Asn Phe Glu Gln Glu Phe His Val Ala		
115	120	125
Tyr Leu Phe Ile Arg Met Gly Asn Ser Pro Arg Pro Gly Leu Trp Thr		
130	135	140

Leu Glu Lys Ser Thr Asp Tyr Gly Lys Thr Trp Thr Pro Trp Gln His
 145 150 155 160
 Phe Ser Asp Thr Pro Ala Asp Cys Glu Thr Tyr Phe Gly Lys Asp Thr
 165 170 175
 Tyr Lys Pro Ile Thr Arg Asp Asp Val Ile Cys Thr Thr Glu Tyr
 180 185 190
 Ser Lys Ile Val Pro Leu Glu Asn Gly Glu Ile Pro Val Met Leu Leu
 195 200 205
 Asn Glu Arg Pro Ser Ser Thr Asn Tyr Phe Asn Ser Thr Val Leu Gln
 210 215 220
 Glu Trp Thr Arg Ala Thr Asn Val Arg Ile Arg Leu Leu Arg Thr Lys
 225 230 235 240
 Asn Leu Leu Gly His Leu Met Ser Val Ala Arg Gln Asp Pro Thr Val
 245 250 255
 Thr Arg Arg Tyr Phe Tyr Ser Ile Lys Asp Ile Ser Ile Gly Gly Arg
 260 265 270
 Cys Met Cys Asn Gly His Ala Asp Thr Cys Asp Val Lys Asp Pro Lys
 275 280 285
 Ser Pro Val Arg Ile Leu Ala Cys Arg Cys Gln His His Thr Cys Gly
 290 295 300
 Ile Gln Cys Asn Glu Cys Cys Pro Gly Phe Glu Gln Lys Lys Trp Arg
 305 310 315 320
 Gln Asn Thr Asn Ala Arg Pro Phe Asn Cys Glu Pro Cys Asn Cys His
 325 330 335
 Gly His Ser Asn Glu Cys Lys Tyr Asp Glu Glu Val Asn Arg Lys Gly
 340 345 350
 Leu Ser Leu Asp Ile His Gly His Tyr Asp Gly Gly Val Cys Gln
 355 360 365
 Asn Cys Gln His Asn Thr Val Gly Ile Asn Cys Asn Lys Cys Lys Pro
 370 375 380
 Lys Tyr Tyr Arg Pro Lys Gly Lys His Trp Asn Glu Thr Asp Val Cys
 385 390 395 400
 Ser Pro Cys Gln Cys Asp Tyr Phe Phe Ser Thr Gly His Cys Glu Glu
 405 410 415
 Glu Thr Gly Asn Cys Glu Cys Arg Ala Ala Phe Gln Pro Pro Ser Cys
 420 425 430
 Asp Ser Cys Ala Tyr Gly Tyr Gly Tyr Pro Asn Cys Arg Glu Cys
 435 440 445

Glu Cys Asn Leu Asn Gly Thr Asn Gly Tyr His Cys Glu Ala Glu Ser
 450 455 460
 Gly Gln Gln Cys Pro Cys Lys Ile Asn Phe Ala Gly Ala Tyr Cys Lys
 465 470 475 480
 Gln Cys Ala Glu Gly Tyr Tyr Gly Phe Pro Glu Cys Lys Ala Cys Glu
 485 490 495
 Cys Asn Lys Ile Gly Ser Ile Thr Asn Asp Cys Asn Val Thr Thr Gly
 500 505 510
 Glu Cys Lys Cys Leu Thr Asn Phe Gly Gly Asp Asn Cys Glu Arg Cys
 515 520 525
 Lys His Gly Tyr Phe Asn Tyr Pro Thr Cys Ser Tyr Cys Asp Cys Asp
 530 535 540
 Asn Gln Gly Thr Glu Ser Glu Ile Cys Asn Lys Gln Ser Gly Gln Cys
 545 550 555 560
 Ile Cys Arg Glu Gly Phe Gly Gly Pro Arg Cys Asp Gln Cys Leu Pro
 565 570 575
 Gly Phe Tyr Asn Tyr Pro Asp Cys Lys Pro Cys Asn Cys Ser Ser Thr
 580 585 590
 Gly Ser Ser Ala Ile Thr Cys Asp Asn Thr Gly Lys Cys Asn Cys Leu
 595 600 605
 Asn Asn Phe Ala Gly Lys Gln Cys Thr Leu Cys Thr Ala Gly Tyr Tyr
 610 615 620
 Ser Tyr Pro Asp Cys Leu Pro Cys His Cys Asp Ser His Gly Ser Gln
 625 630 635 640
 Gly Val Ser Cys Asn Ser Asp Gly Gln Cys Leu Cys Gln Pro Asn Phe
 645 650 655
 Asp Gly Arg Gln Cys Asp Ser Cys Lys Glu Gly Phe Tyr Asn Phe Pro
 660 665 670
 Ser Cys Glu Asp Cys Asn Cys Asp Pro Ala Gly Val Ile Asp Lys Phe
 675 680 685
 Ala Gly Cys Gly Ser Val Pro Val Gly Glu Leu Cys Lys Cys Lys Glu
 690 695 700
 Arg Val Thr Gly Arg Ile Cys Asn Glu Cys Lys Pro Leu Tyr Trp Asn
 705 710 715 720
 Leu Asn Ile Ser Asn Thr Glu Gly Cys Glu Ile Cys Asp Cys Trp Thr
 725 730 735
 Asp Gly Thr Ile Ser Ala Leu Asp Thr Cys Thr Ser Lys Ser Gly Gln
 740 745 750

Cys Pro Cys Lys Pro His Thr Gln Gly Arg Arg Cys Gln Glu Cys Arg
 755 760 765
 Asp Gly Thr Phe Asp Leu Asp Ser Ala Ser Leu Phe Gly Cys Lys Asp
 770 775 780
 Cys Ser Cys Asp Val Gly Gly Ser Trp Gln Ser Val Cys Asp Lys Ile
 785 790 795 800
 Ser Gly Gln Cys Lys Cys His Pro Arg Ile Thr Gly Leu Ala Cys Thr
 805 810 815
 Gln Pro Leu Thr Thr His Phe Phe Pro Thr Leu His Gln Phe Gln Tyr
 820 825 830
 Glu Tyr Glu Asp Gly Ser Leu Pro Ser Gly Thr Gln Val Arg Tyr Asp
 835 840 845
 Tyr Asp Glu Ala Ala Phe Pro Gly Phe Ser Ser Lys Gly Tyr Val Val
 850 855 860
 Phe Asn Ala Ile Gln Asn Asp Val Arg Asn Glu Val Asn Val Phe Lys
 865 870 875 880
 Ser Ser Leu Tyr Arg Ile Val Leu Arg Tyr Val Asn Pro Asn Ala Glu
 885 890 895
 Asn Val Thr Ala Thr Ile Ser Val Thr Ser Asp Asn Pro Leu Glu Val
 900 905 910
 Asp Gln His Val Lys Val Leu Leu Gln Pro Thr Ser Glu Pro Gln Phe
 915 920 925
 Val Thr Val Ala Gly Pro Leu Gly Val Lys Pro Ser Ala Ile Val Leu
 930 935 940
 Asp Pro Gly Arg Tyr Val Phe Thr Thr Lys Ala Asn Lys Asn Val Met
 945 950 955 960
 Leu Asp Tyr Phe Val Leu Leu Pro Ala Ala Tyr Tyr Glu Ala Gly Ile
 965 970 975
 Leu Thr Arg His Ile Ser Asn Pro Cys Glu Leu Gly Asn Met Glu Leu
 980 985 990
 Cys Arg His Tyr Lys Tyr Ala Ser Val Glu Val Phe Ser Pro Ala Ala
 995 1000 1005
 Thr Pro Phe Val Ile Gly Glu Asn Ser Lys Pro Thr Asn Pro Val Glu
 1010 1015 1020
 Thr Tyr Thr Asp Pro Glu His Leu Gln Ile Val Ser His Val Gly Asp
 1025 1030 1035 1040
 Ile Pro Val Leu Ser Gly Ser Gln Asn Glu Leu His Tyr Ile Val Asp
 1045 1050 1055

Val Pro Arg Ser Gly Arg Tyr Ile Phe Val Ile Asp Tyr Ile Ser Asp
 1060 1065 1070

 Arg Asn Phe Pro Asp Ser Tyr Tyr Ile Asn Leu Lys Leu Lys Asp Asn
 1075 1080 1085

 Pro Asp Ser Glu Thr Ser Val Leu Leu Tyr Pro Cys Leu Tyr Ser Thr
 1090 1095 1100

 Ile Cys Arg Thr Ser Val Asn Glu Asp Gly Met Glu Lys Ser Phe Tyr
 1105 1110 1115 1120

 Ile Asn Lys Glu Asp Leu Gln Pro Val Ile Ile Ser Ala Asp Ile Glu
 1125 1130 1135

 Asp Gly Ser Arg Phe Pro Ile Ile Ser Val Thr Ala Ile Pro Val Asp
 1140 1145 1150

 Gln Trp Ser Ile Asp Tyr Ile Asn Pro Ser Pro Val Cys Val Ile His
 1155 1160 1165

 Asp Gln Gln Cys Ala Thr Pro Lys Phe Arg Ser Val Pro Asp Ser Lys
 1170 1175 1180

 Lys Ile Glu Phe Glu Thr Asp His Glu Asp Arg Ile Ala Thr Asn Lys
 1185 1190 1195 1200

 Pro Pro Tyr Ala Ser Leu Asp Glu Arg Val Lys Leu Val His Leu Asp
 1205 1210 1215

 Ser Gln Asn Glu Ala Thr Ile Val Ile Glu Ser Lys Val Asp Ala Thr
 1220 1225 1230

 Lys Pro Asn Leu Phe Val Ile Leu Val Lys Tyr Tyr Gln Pro Ser His
 1235 1240 1245

 Pro Lys Tyr Gln Val Tyr Tyr Thr Leu Thr Ala Gly Lys Asn Gln Tyr
 1250 1255 1260

 Asp Gly Lys Phe Asp Ile Gln His Cys Pro Ser Ser Ser Gly Cys Arg
 1265 1270 1275 1280

 Gly Val Ile Arg Pro Ala Gly Glu Gly Ser Phe Glu Ile Asp Asp Glu
 1285 1290 1295

 Phe Lys Phe Thr Ile Thr Asp Arg Ser Gln Ser Val Trp Leu Asp
 1300 1305 1310

 Tyr Leu Val Val Val Pro Leu Lys Gln Tyr Asn Asp Asp Leu Leu Val
 1315 1320 1325

 Glu Glu Thr Phe Asp Gln Thr Lys Glu Phe Ile Gln Asn Cys Gly His
 1330 1335 1340

 Asp His Phe His Ile Thr His Asn Ala Ser Asp Phe Cys Lys Lys Ser
 1345 1350 1355 1360

Val Phe Ser Leu Thr Ala Asp Tyr Asn Ser Gly Ala Leu Pro Cys Asn
 1365 1370 1375
 Cys Asp Tyr Ala Gly Ser Thr Ser Phe Glu Cys His Pro Phe Gly Gly
 1380 1385 1390
 Gln Cys Gln Cys Lys Pro Asn Val Ile Glu Arg Thr Cys Gly Ala Cys
 1395 1400 1405
 Arg Ser Arg Tyr Tyr Gly Phe Pro Asp Cys Lys Pro Cys Lys Cys Pro
 1410 1415 1420
 Asn Ser Ala Met Cys Glu Pro Thr Thr Gly Glu Cys Met Cys Pro Pro
 1425 1430 1435 1440
 Asn Val Ile Gly Asp Leu Cys Glu Lys Cys Ala Pro Asn Thr Tyr Gly
 1445 1450 1455
 Phe His Gln Val Ile Gly Cys Glu Glu Cys Ala Cys Asn Pro Met Gly
 1460 1465 1470
 Ile Ala Asn Gly Asn Ser Gln Cys Asp Leu Phe Asn Gly Thr Cys Glu
 1475 1480 1485
 Cys Arg Gln Asn Ile Glu Gly Arg Ala Cys Asp Val Cys Ser Asn Gly
 1490 1495 1500
 Tyr Phe Asn Phe Pro His Cys Glu Gln Cys Ser Cys His Lys Pro Gly
 1505 1510 1515 1520
 Thr Glu Leu Glu Val Cys Asp Lys Ile Asp Gly Ala Cys Phe Cys Lys
 1525 1530 1535
 Lys Asn Val Val Gly Arg Asp Cys Asp Gln Cys Val Asp Gly Thr Tyr
 1540 1545 1550
 Asn Leu Gln Glu Ser Asn Pro Asp Gly Cys Thr Thr Cys Phe Cys Phe
 1555 1560 1565
 Gly Lys Thr Ser Arg Cys Asp Ser Ala Tyr Leu Arg Val Tyr Asn Val
 1570 1575 1580
 Ser Leu Leu Lys His Val Ser Ile Thr Thr Pro Glu Phe His Glu Glu
 1585 1590 1595 1600
 Ser Ile Lys Phe Asp Met Trp Pro Val Pro Ala Asp Glu Ile Leu Leu
 1605 1610 1615
 Asn Glu Thr Thr Leu Lys Ala Asp Phe Thr Leu Arg Glu Val Asn Asp
 1620 1625 1630
 Glu Arg Pro Ala Tyr Phe Gly Val Leu Asp Tyr Leu Leu Asn Gln Asn
 1635 1640 1645
 Asn His Ile Ser Ala Tyr Gly Asp Leu Ala Tyr Thr Leu His Phe
 1650 1655 1660

Thr Ser Gly Phe Asp Gly Lys Tyr Ile Val Ala Pro Asp Val Ile Leu
 1665 1670 1675 1680
 Phe Ser Glu His Asn Ala Leu Val His Thr Ser Tyr Glu Gln Pro Ser
 1685 1690 1695
 Arg Asn Glu Pro Phe Thr Asn Arg Val Asn Ile Val Glu Ser Asn Phe
 1700 1705 1710
 Gln Thr Ile Ser Gly Lys Pro Val Ser Arg Ala Asp Phe Met Met Val
 1715 1720 1725
 Leu Arg Asp Leu Lys Val Ile Phe Ile Arg Ala Asn Tyr Trp Glu Gln
 1730 1735 1740
 Thr Leu Val Thr His Leu Ser Asp Val Tyr Leu Thr Leu Ala Asp Glu
 1745 1750 1755 1760
 Asp Ala Asp Gly Thr Gly Glu Tyr Gln Phe Leu Ala Val Glu Arg Cys
 1765 1770 1775
 Ser Cys Pro Pro Gly Tyr Ser Gly His Ser Cys Glu Asp Cys Ala Pro
 1780 1785 1790
 Gly Tyr Tyr Arg Asp Pro Ser Gly Pro Tyr Gly Gly Tyr Cys Ile Pro
 1795 1800 1805
 Cys Glu Cys Asn Gly His Ser Glu Thr Cys Asp Cys Ala Thr Gly Ile
 1810 1815 1820
 Cys Ser Lys Cys Gln His Gly Thr Glu Gly Asp His Cys Glu Arg Cys
 1825 1830 1835 1840
 Val Ser Gly Tyr Tyr Gly Asn Ala Thr Asn Gly Thr Pro Gly Asp Cys
 1845 1850 1855
 Met Ile Cys Ala Cys Pro Leu Pro Phe Asp Ser Asn Asn Phe Ala Thr
 1860 1865 1870
 Ser Cys Glu Ile Ser Glu Ser Gly Asp Gln Ile His Cys Glu Cys Lys
 1875 1880 1885
 Pro Gly Tyr Thr Gly Pro Arg Cys Glu Ser Cys Ala Asn Gly Phe Tyr
 1890 1895 1900
 Gly Glu Pro Glu Ser Ile Gly Gln Val Cys Lys Pro Cys Glu Cys Ser
 1905 1910 1915 1920
 Gly Asn Ile Asn Pro Glu Asp Gln Gly Ser Cys Asp Thr Arg Thr Gly
 1925 1930 1935
 Glu Cys Leu Arg Cys Leu Asn Asn Thr Phe Gly Ala Ala Cys Asn Leu
 1940 1945 1950
 Cys Ala Pro Gly Phe Tyr Gly Asp Ala Ile Lys Leu Lys Asn Cys Gln
 1955 1960 1965

Ser Cys Asp Cys Asp Asp Leu Gly Thr Gln Thr Cys Asp Pro Phe Val
1970 1975 1980

Gly Val Cys Thr Cys His Glu Asn Val Ile Gly Asp Arg Cys Asp Arg
1985 1990 1995 2000

Cys Lys Pro Asp His Tyr Gly Phe Glu Ser Gly Val Gly Cys Arg Ala
2005 2010 2015

Cys Asp Cys Gly Ala Ala Ser Asn Ser Thr Gln Cys Asp Pro His Thr
2020 2025 2030

Gly His Cys Ala Cys Lys Ser Gly Val Thr Gly Arg Gln Cys Asp Arg
2035 2040 2045

Cys Ala Val Asp His Trp Lys Tyr Glu Lys Asp Gly Cys Thr Pro Cys
2050 2055 2060

Asn Cys Asn Gln Gly Tyr Ser Arg Gly Phe Gly Cys Asn Pro Asn Thr
2065 2070 2075 2080

Gly Lys Cys Gln Cys Leu Pro Gly Val Ile Gly Asp Arg Cys Asp Ala
2085 2090 2095

Cys Pro Asn Arg Trp Val Leu Ile Lys Asp Glu Gly Cys Gln Glu Cys
2100 2105 2110

Asn Asn Cys His His Ala Leu Leu Asp Val Thr Asp Arg Met Arg Tyr
2115 2120 2125

Gln Ile Asp Ser Val Leu Glu Asp Phe Asn Ser Val Thr Leu Ala Phe
2130 2135 2140

Phe Thr Ser Gln Lys Leu Asn Tyr Tyr Asp Gln Leu Ala Asp Glu Leu
2145 2150 2155 2160

Glu Pro Lys Val Lys Leu Leu Asp Pro Asn Ser Val Asp Leu Ser Pro
2165 2170 2175

Ser Lys Lys Ala Asn Ser Glu Leu Glu Ser Asp Ala Lys Ser Tyr Ala
2180 2185 2190

Lys Gln Val Asn Gln Thr Leu Ala Asn Ala Phe Asp Ile Arg Glu Arg
2195 2200 2205

Ser Ser Thr Thr Leu Gly Asn Ile Thr Val Ala Tyr Asp Glu Ala Val
2210 2215 2220

Lys Ser Ala Asp Gln Ala Lys Glu Ala Ile Ala Ser Val Glu Ala Leu
2225 2230 2235 2240

Ser Lys Asn Leu Glu Ala Ala Ala Ser Thr Lys Ile Asp Ala Ala Leu
2245 2250 2255

Glu Gln Ala Gln His Ile Leu Gly Gln Ile Asn Gly Thr Ser Ile Glu
2260 2265 2270

Leu Thr Pro Asn Glu Gln Val Leu Glu Lys Ala Arg Lys Leu Tyr Glu
2275 2280 2285

Glu Val Asn Thr Leu Val Leu Pro Ile Lys Ala Gln Asn Lys Ser Leu
2290 2295 2300

Asn Ala Leu Lys Asn Asp Ile Gly Glu Phe Ser Asp His Leu Glu Asp
2305 2310 2315 2320

Leu Phe Asn Trp Ser Glu Ala Ser Gln Ala Lys Ser Ala Asp Val Glu
2325 2330 2335

Arg Arg Asn Val Ala Asn Gln Lys Ala Phe Asp Asn Ser Lys Phe Asp
2340 2345 2350

Thr Val Ser Glu Gln Lys Leu Gln Ala Glu Lys Asn Ile Lys Asp Ala
2355 2360 2365

Gly Asn Phe Leu Ile Asn Gly Asp Leu Thr Leu Asn Gln Ile Asn Gln
2370 2375 2380

Lys Leu Asp Asn Leu Arg Asp Ala Leu Asn Glu Leu Asn Ser Phe Asn
2385 2390 2395 2400

Lys Asn Val Asp Glu Glu Leu Pro Val Arg Glu Asp Gln His Lys Glu
2405 2410 2415

Ala Asp Ala Leu Thr Asp Gln Ala Glu Gln Lys Ala Ala Glu Leu Ala
2420 2425 2430

Ile Lys Ala Gln Asp Leu Ala Ala Gln Tyr Thr Asp Met Thr Ala Ser
2435 2440 2445

Ala Glu Pro Ala Ile Lys Ala Ala Thr Ala Tyr Ser Gly Ile Val Glu
2450 2455 2460

Ala Val Glu Ala Ala Gln Lys Leu Ser Gln Asp Ala Ile Ser Ala Ala
2465 2470 2475 2480

Gly Asn Ala Thr Asp Lys Thr Asp Gly Ile Glu Glu Arg Ala His Leu
2485 2490 2495

Ala Asp Thr Gly Ser Thr Asp Leu Leu Gln Arg Ala Arg Gln Ser Leu
2500 2505 2510

Gln Lys Val Gln Asp Asp Leu Glu Pro Arg Leu Asn Ala Ser Ala Gly
2515 2520 2525

Lys Val Gln Lys Ile Ser Ala Val Asn Asn Ala Thr Glu His Gln Leu
2530 2535 2540

Lys Asp Ile Asn Lys Leu Ile Asp Gln Leu Pro Ala Glu Ser Gln Arg
2545 2550 2555 2560

Asp Met Trp Lys Asn Ser Asn Ala Asn Ala Ser Asp Ala Leu Glu Ile
2565 2570 2575

Leu Lys Asn Val Leu Glu Ile Leu Glu Pro Val Ser Val Gln Thr Pro
 2580 2585 2590
 Lys Glu Leu Glu Lys Ala His Gly Ile Asn Arg Asp Leu Asp Leu Thr
 2595 2600 2605
 Asn Lys Asp Val Ser Gln Ala Asn Lys Gln Leu Asp Asp Val Glu Gly
 2610 2615 2620
 Ser Val Ser Lys Leu Ser Glu Leu Ala Glu Asp Ile Glu Glu Gln Gln
 2625 2630 2635 2640
 His Arg Val Gly Ser Gln Ser Arg Gln Leu Gly Gln Glu Ile Glu Asn
 2645 2650 2655
 Leu Lys Ala Gln Val Glu Ala Ala Arg Gln Leu Ala Asn Ser Ile Lys
 2660 2665 2670
 Val Gly Val Asn Phe Lys Pro Ser Thr Ile Leu Glu Leu Lys Thr Pro
 2675 2680 2685
 Glu Lys Thr Lys Leu Leu Ala Thr Arg Thr Asn Leu Ser Thr Tyr Phe
 2690 2695 2700
 Arg Thr Thr Glu Pro Ser Gly Phe Leu Leu Tyr Leu Gly Asn Asp Asn
 2705 2710 2715 2720
 Lys Thr Ala Gln Lys Asn Asn Asp Phe Val Ala Val Glu Ile Val Asn
 2725 2730 2735
 Gly Tyr Pro Ile Leu Thr Ile Asp Leu Gly Asn Gly Pro Glu Arg Ile
 2740 2745 2750
 Thr Ser Asp Lys Tyr Val Ala Asp Gly Arg Trp Tyr Gln Ala Val Val
 2755 2760 2765
 Asp Arg Met Gly Pro Asn Ala Lys Leu Thr Ile Arg Glu Glu Leu Pro
 2770 2775 2780
 Asn Gly Asp Val Val Glu His Ser Lys Ser Gly Tyr Leu Glu Gly Ser
 2785 2790 2795 2800
 Gln Asn Ile Leu His Val Asp Lys Asn Ser Arg Leu Phe Val Gly Gly
 2805 2810 2815
 Tyr Pro Gly Ile Ser Asp Phe Asn Ala Pro Pro Asp Leu Thr Thr Asn
 2820 2825 2830
 Ser Phe Ser Gly Asp Ile Glu Asp Leu Lys Ile Gly Asp Glu Ser Val
 2835 2840 2845
 Gly Leu Trp Asn Phe Val Tyr Gly Asp Asp Asn Asp Gln Gly Ala Arg
 2850 2855 2860
 Glu Arg Asp Val Leu Leu Glu Lys Lys Pro Val Thr Gly Leu Arg
 2865 2870 2875 2880

Phe Lys Gly Asn Gly Tyr Val Gln Leu Asn Ala Thr Ser Asn Leu Lys
2885 2890 2895

Ser Arg Ser Ser Ile Gln Phe Ser Phe Lys Ala Asp Lys Asp Thr Ser
2900 2905 2910

Asn Gly Leu Leu Phe Phe Tyr Gly Arg Asp Lys His Tyr Met Ser Ile
2915 2920 2925

Glu Met Ile Asp Gly Ala Ile Phe Phe Asn Ile Ser Leu Gly Glu Gly
2930 2935 2940

Gly Gly Val Gln Ser Gly Ser Gln Asp Arg Tyr Asn Asp Asn Gln Trp
2945 2950 2955 2960

His Lys Val Gln Ala Glu Arg Glu Asn Arg Asn Gly Leu Leu Lys Val
2965 2970 2975

Asp Asp Ile Val Ile Ser Arg Thr Asn Ala Pro Leu Glu Ala Asp Leu
2980 2985 2990

Glu Leu Pro Lys Leu Arg Arg Leu Tyr Phe Gly Gly His Pro Arg Arg
2995 3000 3005

Leu Asn Thr Ser Ile Ser Leu Gln Pro Asn Phe Asp Gly Cys Ile Asp
3010 3015 3020

Asn Val Val Ile Asn Gln Gly Val Val Asp Leu Thr Glu Tyr Val Thr
3025 3030 3035 3040

Gly Gly Gly Val Glu Glu Gly Cys Ser Ala Lys Phe Ser Thr Val Val
3045 3050 3055

Ser Tyr Ala Pro His Glu Tyr Gly Phe Leu Arg Met Asn Asn Val Ser
3060 3065 3070

Ser Asp Asn Asn Leu His Val Val Leu His Phe Lys Thr Thr Gln Pro
3075 3080 3085

Asn Gly Val Leu Phe Tyr Ala Ala Asn His Asp Gln Ser Ser Thr Ile
3090 3095 3100

Gly Leu Ser Leu Gln Asp Gly Leu Leu Lys Leu Asn Ser Met Gly Ser
3105 3110 3115 3120

Gln Leu Val Ile Asp Asp Arg Ile Leu Asn Asp Gly Glu Asp His Val
3125 3130 3135

Val Thr Val Gln His Thr Gln Gly Glu Leu Arg Leu Thr Val Asp Asp
3140 3145 3150

Val Asp Asn Lys Arg Leu Gly Ser Pro Gln Pro Leu Ile Leu Glu Gly
3155 3160 3165

Gly Asp Ile Phe Phe Ala Gly Leu Pro Asp Asn Tyr Arg Thr Pro Arg
3170 3175 3180

Asn Ala Leu Ala Ser Leu Ala Tyr Phe Val Gly Cys Ile Ser Asp Val
 3185 3190 3195 3200
 Thr Val Asn Glu Glu Ile Ile Asn Phe Ala Asn Ser Ala Glu Lys Lys
 3205 3210 3215
 Asn Gly Asn Ile Asn Gly Cys Pro Pro His Val Leu Ala Tyr Glu Pro
 3220 3225 3230
 Ser Leu Val Pro Ser Tyr Tyr Pro Ser Gly Asp Asn Glu Val Glu Ser
 3235 3240 3245
 Pro Trp Ser Asn Ala Asp Thr Leu Pro Pro Leu Lys Pro Asp Ile Glu
 3250 3255 3260
 Ser Thr Leu Pro Pro Thr Thr Pro Thr Thr Thr Thr Thr Thr Thr Thr
 3265 3270 3275 3280
 Thr Thr Thr Ser Thr Thr Thr Ser Thr Thr Thr Thr Thr Thr Thr Thr
 3285 3290 3295
 Pro Ser Pro Ile Val Ile Asp Glu Glu Lys Glu Ile Glu Ala Lys Thr
 3300 3305 3310
 Pro Gln Lys Ile Leu Thr Thr Arg Pro Pro Ala Lys Leu Asn Leu Pro
 3315 3320 3325
 Ser Asp Glu Arg Cys Lys Leu Pro Glu Gln Pro Asn Phe Asp Val Asp
 3330 3335 3340
 Phe Thr Glu Ala Gly Tyr Arg Phe Tyr Gly Leu Arg Glu Gln Arg Leu
 3345 3350 3355 3360
 Gln Ile Asn Ser Leu Pro Val Lys Val Arg Arg His His Asp Ile Gly
 3365 3370 3375
 Ile Ser Phe Arg Thr Glu Arg Pro Asn Gly Leu Leu Ile Tyr Ala Gly
 3380 3385 3390
 Ser Lys Gln Arg Asp Asp Phe Ile Ala Val Tyr Leu Leu Asp Gly Arg
 3395 3400 3405
 Val Thr Tyr Glu Ile Arg Val Gly Ala Gln Leu Gln Ala Lys Ile Thr
 3410 3415 3420
 Thr Glu Ala Glu Leu Asn Asp Gly Thr Trp His Thr Val Glu Val Val
 3425 3430 3435 3440
 Arg Thr Gln Arg Lys Val Ser Leu Leu Ile Asp Lys Leu Glu Gln Pro
 3445 3450 3455
 Gly Ser Val Asp Leu Asn Ala Glu Arg Ser Ala Pro Val Leu Ala Val
 3460 3465 3470
 Glu Leu Pro Ile Tyr Leu Gly Gly Val Asn Lys Phe Leu Glu Ser Glu
 3475 3480 3485

Val Lys Asn Leu Thr Asp Phe Lys Thr Glu Val Pro Tyr Phe Asn Gly
 3490 3495 3500
 Cys Leu Lys Asn Ile Lys Phe Asp Ala Met Asp Leu Glu Thr Pro Pro
 3505 3510 3515 3520
 Glu Glu Phe Gly Val Val Pro Cys Ser Glu Gln Val Glu Arg Gly Leu
 3525 3530 3535
 Phe Phe Asn Asn Gln Lys Ala Phe Val Lys Ile Phe Asp His Phe Asp
 3540 3545 3550
 Val Gly Thr Glu Met Lys Ile Ser Phe Asp Phe Arg Pro Arg Asp Pro
 3555 3560 3565
 Asn Gly Leu Leu Phe Ser Val His Gly Lys Asn Ser Tyr Ala Ile Leu
 3570 3575 3580
 Glu Leu Val Asp Asn Thr Leu Tyr Phe Thr Val Lys Thr Asp Leu Lys
 3585 3590 3595 3600
 Asn Ile Val Ser Thr Asn Tyr Lys Leu Pro Asn Asn Glu Ser Phe Cys
 3605 3610 3615
 Asp Gly Lys Thr Arg Asn Val Gln Ala Ile Lys Ser Lys Phe Val Ile
 3620 3625 3630
 Asn Ile Ala Val Asp Phe Ile Ser Ser Asn Pro Gly Val Gly Asn Glu
 3635 3640 3645
 Gly Ser Val Ile Thr Arg Thr Asn Arg Pro Leu Phe Leu Gly Gly His
 3650 3655 3660
 Val Ala Phe Gln Arg Ala Pro Gly Ile Lys Thr Lys Lys Ser Phe Lys
 3665 3670 3675 3680
 Gly Cys Ile Ser Lys Val Glu Val Asn Gln Arg Met Ile Asn Ile Thr
 3685 3690 3695
 Pro Asn Met Val Val Gly Asp Ile Trp Gln Gly Tyr Cys Pro Leu Asn
 3700 3705 3710

<210> 52
 <211> 239
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Laminin
 N-terminal domain Consensus Sequence

<400> 52
 Ala Gly Arg Pro Arg Arg Cys Tyr Pro Glu Phe Val Asn Leu Ala Phe

1	5	10	15
Gly Arg Pro Val Thr Ala Ser Ser Thr Cys Gly Glu Gln Gly Pro Glu			
20	25	30	
Arg Tyr Cys Lys Leu Val Gly Arg Thr Glu Gln Gly Lys Lys Cys Asp			
35	40	45	
Tyr Cys Asp Ala Arg Asp Pro Arg Arg Ser His Pro Ala Glu Asn Leu			
50	55	60	
Thr Asp Gly Asn Asn Pro Gly Asn Pro Thr Trp Trp Gln Ser Glu Pro			
65	70	75	80
Leu Ser Asn Gly Pro Gln Asn Val Asn Leu Thr Leu Asp Leu Gly Lys			
85	90	95	
Glu Phe His Leu Thr Tyr Val Ile Leu Lys Phe Cys Ser Pro Arg Pro			
100	105	110	
Ser Leu Ala Ile Leu Glu Arg Ser Asp Phe Gly Lys Thr Trp Gln Pro			
115	120	125	
Tyr Gln Tyr Phe Ser Ser Asp Cys Arg Arg Thr Phe Gly Arg Pro Pro			
130	135	140	
Arg Gly Pro Ile Thr Lys Gly Asn Glu Gln Glu Val Leu Cys Thr Ser			
145	150	155	160
Glu Tyr Ser Asp Ile Val Pro Leu Glu Gly Gly Glu Ile Ala Phe Ser			
165	170	175	
Thr Leu Glu Gly Arg Pro Ser Ala Thr Asp Phe Asp Asn Ser Pro Val			
180	185	190	
Leu Gln Glu Trp Val Thr Ala Thr Asn Ile Arg Val Arg Leu Thr Arg			
195	200	205	
Leu Asn Thr Leu Gly Asp Asp Leu Met Asp Lys Arg Asp Pro Glu Val			
210	215	220	
Thr Arg Ser Tyr Tyr Ala Ile Ser Asp Ile Ala Val Gly Gly			
225	230	235	
<210> 53			
<211> 237			
<212> PRT			
<213> Artificial Sequence			
<220>			
<223> Description of Artificial Sequence: Laminin			
N-Terminal Domain Consensus Sequence			
<400> 53			
Cys Tyr Pro Ala Thr Gly Asn Leu Ala Ile Gly Arg Ala Leu Ser Ala			
1	5	10	15

Thr Ser Thr Cys Gly Leu His Ser Pro Glu Pro Tyr Cys Ile Leu Ser
 20 25 30
 His Leu Gln Pro Arg Asp Lys Lys Cys Phe Leu Cys Asp Ser Asn Ser
 35 40 45
 Pro Asn Pro Arg Asn Ser His Pro Ile Ser Phe Leu Thr Asp Thr Phe
 50 55 60
 Asn Pro Gln Ser Pro Thr Trp Trp Gln Ser Glu Thr Met Gln Asn Gly
 65 70 75 80
 Val Gln Tyr Pro Asn Val Thr Ile Thr Leu Asp Leu Glu Ala Glu Phe
 85 90 95
 His Phe Thr Tyr Val Ile Ile Thr Phe Lys Thr Phe Arg Pro Ala Ala
 100 105 110
 Met Ile Tyr Glu Arg Ser Ser Asp Phe Gly Thr Trp Ile Pro Tyr Gln
 115 120 125
 Tyr Tyr Ala Tyr Asp Cys Glu Ala Thr Tyr Pro Gly Ile Pro Arg Arg
 130 135 140
 Pro Ile Arg Thr Gly Arg Ala Glu Asp Asp Val Leu Cys Thr Ser Arg
 145 150 155 160
 Tyr Ser Asp Ile Glu Pro Leu Thr Glu Gly Glu Val Ile Phe Ser Thr
 165 170 175
 Leu Glu Gly Arg Pro Ser Ala Asp Asn Phe Asp Pro Ser Pro Arg Leu
 180 185 190
 Gln Glu Trp Leu Lys Ala Thr Asn Ile Arg Ile Thr Leu Thr Arg Leu
 195 200 205
 His Thr Leu Gly Asp Asn Leu Leu Asp Ser Asp Pro Glu Val Leu Glu
 210 215 220
 Lys Tyr Tyr Ala Ile Ser Asp Ile Val Val Gly Gly
 225 230 235

<210> 54
 <211> 127
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Laminin B
 Domain Consensus Sequence

<400> 54
 Asp Asn Glu Pro Val Tyr Trp Val Ala Pro Glu Gln Phe Leu Gly Asp
 1 5 10 15

Lys Val Thr Ser Tyr Gly Gly Lys Leu Arg Tyr Thr Leu Ser Phe Asp
 20 25 30
 Gly Arg Glu Gly Gly Thr Thr Leu Ser Ala Pro Asp Val Ile Leu Glu
 35 40 45
 Gly Asn Gly Leu Arg Leu Ser His Pro Ala Gln Gly Pro Pro Leu Pro
 50 55 60
 Asp Glu Glu Thr Thr Asn Glu Val Arg Phe Arg Glu Glu Asn Trp Gln
 65 70 75 80
 Tyr Phe Gly Gly Arg Pro Val Thr Arg Glu Asp Leu Met Met Val Leu
 85 90 95
 Ala Asn Leu Thr Ala Ile Leu Ile Arg Ala Thr Tyr Ser Glu Gln Gln
 100 105 110
 Leu Ala Ser Arg Leu Ser Asp Val Ser Leu Glu Val Ala Val Pro
 115 120 125

<210> 55
 <211> 135
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Laminin B
 domain Consensus Sequence

<400> 55
 Tyr Trp Arg Leu Pro Glu Arg Phe Leu Gly Asp Gln Val Thr Ser Tyr
 1 5 10 15
 Gly Gly Lys Leu Lys Tyr Ser Val Ala Phe Asp Gly Val Gly Thr Ser
 20 25 30
 Asn Ser Glu Pro Asp Val Ile Leu Lys Gly Asn Gly Leu Arg Leu Ser
 35 40 45
 Val Pro Tyr Met Ala Gln Gly Asn Ser Tyr Pro Ser Glu Val Arg Val
 50 55 60
 Lys Tyr Thr Val Arg Leu His Glu Thr Phe Trp Asp Phe Gln Ser Gln
 65 70 75 80
 Pro Ala Val Thr Arg Glu Asp Phe Leu Ser Val Leu Ala Asn Leu Thr
 85 90 95
 Ala Ile Leu Ile Arg Ala Thr Tyr Ser Ala Gly Gln Ala Gln Ser Arg
 100 105 110
 Leu Asp Asp Val Ser Leu Glu Ile Ala Arg Pro Gly Ala Ala Gly Pro
 115 120 125
 Val Pro Ala Thr Trp Val Glu

130

135

<210> 56
<211> 135
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Laminin G
Domain Consensus Sequence

<400> 56
Thr Arg Leu Ser Ile Ser Phe Ser Phe Arg Thr Thr Ser Pro Asn Gly
1 5 10 15

Leu Leu Leu Tyr Ala Gly Ser Lys Gly Gly Gly Asp Phe Leu Ala Leu
20 25 30

Glu Leu Arg Asp Gly Arg Leu Val Leu Arg Tyr Asp Leu Gly Ser Gly
35 40 45

Pro Ala Arg Leu Thr Ser Asp Pro Thr Pro Leu Asn Asp Gly Gln Trp
50 55 60

His Arg Val Ser Val Glu Arg Asn Gly Arg Arg Val Thr Leu Ser Val
65 70 75 80

Asp Gly Gly Asn Arg Val Ser Gly Glu Ser Pro Gly Gly Ser Thr Ile
85 90 95

Leu Asp Leu Asp Gly Pro Leu Tyr Leu Gly Gly Leu Pro Glu Asp Leu
100 105 110

Lys Leu Pro Gly Leu Pro Val Thr Pro Gly Phe Arg Gly Cys Ile Arg
115 120 125

Asn Leu Lys Val Asn Gly Lys
130 135

<210> 57
<211> 49
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Laminin
EGF-like Consensus Sequence

<400> 57
Cys Asp Cys Asn Pro His Gly Ser Leu Ser Asp Thr Cys Asp Pro Glu
1 5 10 15

Thr Gly Gln Cys Leu Cys Lys Pro Gly Val Thr Gly Arg Arg Cys Asp
20 25 30

Arg Cys Lys Pro Gly Tyr Tyr Gly Leu Pro Ser Asp Pro Gly Gln Gly
35 40 45

Cys

<210> 58
<211> 47
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Laiminin
EGF-like Consensus Sequence

<400> 58
Cys Asp Cys Asp Pro Gly Gly Ser Ala Ser Thr Cys Asp Pro Glu Thr
1 5 10 15

Gly Gln Cys Glu Cys Lys Pro Asn Thr Thr Gly Arg Arg Cys Asp Arg
20 25 30

Cys Ala Pro Gly Tyr Tyr Gly Leu Pro Glu Ser Pro Pro Gly Cys
35 40 45

<210> 59
<211> 860
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Mysosin Tail
Consensus Sequence

<400> 59
Glu Leu Glu Arg Gln Lys Arg Glu Leu Glu Asn Gln Leu Tyr Arg Lys
1 5 10 15

Glu Ser Glu Leu Ser Gln Leu Ser Ser Lys Leu Glu Asp Glu Gln Ala
20 25 30

Leu Val Ala Gln Leu Gln Lys Lys Ile Lys Glu Leu Glu Ala Arg Ile
35 40 45

Arg Glu Leu Glu Glu Leu Glu Ala Glu Arg Ala Ala Arg Ala Lys
50 55 60

Ala Glu Lys Ala Arg Ala Asp Leu Ser Arg Glu Leu Glu Leu Ser
65 70 75 80

Glu Arg Leu Glu Glu Ala Gly Gly Ala Thr Ala Ala Gln Ile Glu Leu
85 90 95

Asn Lys Lys Arg Glu Ala Glu Leu Ala Lys Leu Arg Lys Asp Leu Glu
100 105 110

Glu Ala Asn Leu Gln His Glu Glu Ala Leu Ala Thr Leu Arg Lys Lys
 115 120 125
 His Gln Asp Ala Ile Asn Glu Leu Ser Glu Gln Ile Glu Gln Leu Gln
 130 135 140
 Lys Gln Lys Ala Lys Ala Glu Lys Glu Lys Ser Gln Leu Gln Ala Glu
 145 150 155 160
 Val Asp Asp Leu Leu Ala Gln Leu Asp Ser Ile Thr Lys Ala Lys Leu
 165 170 175
 Asn Ala Glu Lys Lys Ala Lys Gln Leu Glu Ser Gln Leu Ser Glu Leu
 180 185 190
 Gln Val Lys Leu Asp Glu Leu Gln Arg Gln Leu Asn Asp Leu Thr Ser
 195 200 205
 Gln Lys Ser Arg Leu Gln Ser Glu Asn Ser Asp Leu Thr Arg Gln Leu
 210 215 220
 Glu Glu Ala Glu Ala Gln Val Ser Asn Leu Ser Lys Leu Lys Ser Gln
 225 230 235 240
 Leu Glu Ser Gln Leu Glu Glu Ala Lys Arg Ser Leu Glu Glu Ser
 245 250 255
 Arg Glu Arg Ala Asn Leu Gln Ala Gln Leu Arg Gln Leu Glu His Asp
 260 265 270
 Leu Asp Ser Leu Arg Glu Gln Leu Glu Glu Ser Glu Ala Lys Ala
 275 280 285
 Glu Leu Glu Arg Gln Leu Ser Lys Ala Asn Ala Glu Ile Gln Gln Trp
 290 295 300
 Arg Ser Lys Phe Glu Ser Glu Gly Ala Leu Arg Ala Glu Glu Leu Glu
 305 310 315 320
 Glu Leu Lys Lys Leu Asn Gln Lys Ile Ser Glu Leu Glu Glu Ala
 325 330 335
 Ala Glu Ala Ala Asn Ala Lys Cys Asp Ser Leu Glu Lys Thr Lys Ser
 340 345 350
 Arg Leu Gln Ser Glu Leu Glu Asp Leu Gln Ile Glu Leu Glu Arg Ala
 355 360 365
 Asn Ala Ala Ala Ser Glu Leu Glu Lys Lys Gln Lys Asn Phe Asp Lys
 370 375 380
 Ile Leu Ala Glu Trp Lys Arg Lys Val Asp Glu Leu Gln Ala Glu Leu
 385 390 395 400
 Asp Thr Ala Gln Arg Glu Ala Arg Asn Leu Ser Thr Glu Leu Phe Arg
 405 410 415

Leu Lys Asn Glu Leu Glu Leu Lys Asp Gln Val Glu Ala Leu Arg
 420 425 430
 Arg Glu Asn Lys Asn Leu Gln Asp Glu Ile His Asp Leu Thr Asp Gln
 435 440 445
 Leu Gly Glu Gly Gly Arg Asn Val His Glu Leu Glu Lys Ala Arg Arg
 450 455 460
 Arg Leu Glu Ala Glu Lys Asp Glu Leu Gln Ala Ala Leu Glu Glu Ala
 465 470 475 480
 Glu Ala Ala Leu Glu Leu Glu Ser Lys Val Leu Arg Ala Gln Val
 485 490 495
 Glu Leu Ser Gln Ile Arg Ser Glu Ile Glu Arg Arg Leu Ala Glu Lys
 500 505 510
 Glu Glu Glu Phe Glu Asn Thr Arg Lys Asn His Gln Arg Ala Ile Glu
 515 520 525
 Ser Leu Gln Ala Thr Leu Glu Ala Glu Thr Lys Gly Lys Ala Glu Ala
 530 535 540
 Ser Arg Leu Lys Lys Leu Glu Gly Asp Ile Asn Glu Leu Glu Ile
 545 550 555 560
 Ala Leu Asp His Ala Asn Lys Ala Asn Ala Glu Ala Gln Lys Asn Val
 565 570 575
 Lys Lys Tyr Gln Gln Val Lys Glu Leu Gln Thr Gln Val Glu Glu
 580 585 590
 Glu Gln Arg Ala Arg Glu Asp Ala Arg Glu Gln Leu Ala Val Ala Glu
 595 600 605
 Arg Arg Ala Thr Ala Leu Glu Ala Glu Leu Glu Leu Arg Ser Ala
 610 615 620
 Leu Glu Gln Ala Glu Arg Ala Arg Lys Gln Ala Glu Thr Glu Leu Ala
 625 630 635 640
 Glu Ala Ser Glu Arg Val Asn Glu Leu Thr Ala Gln Asn Ser Ser Leu
 645 650 655
 Ile Ala Gln Lys Arg Lys Leu Glu Gly Glu Leu Ala Ala Leu Gln Ser
 660 665 670
 Asp Leu Asp Glu Ala Val Asn Glu Leu Lys Ala Ala Glu Glu Arg Ala
 675 680 685
 Lys Lys Ala Gln Ala Asp Ala Ala Arg Leu Ala Glu Glu Leu Arg Gln
 690 695 700
 Glu Gln Glu His Ser Gln His Leu Glu Arg Leu Arg Lys Gln Leu Glu
 705 710 715 720

Ser Gln Val Lys Glu Leu Gln Val Arg Leu Asp Glu Ala Glu Ala Ala
 725 730 735

 Ala Leu Lys Gly Gly Lys Lys Met Ile Gln Lys Leu Glu Ala Arg Val
 740 745 750

 Arg Glu Leu Glu Ala Glu Leu Asp Gly Glu Gln Arg Arg His Ala Glu
 755 760 765

 Thr Gln Lys Asn Leu Arg Lys Met Glu Arg Arg Val Lys Glu Leu Gln
 770 775 780

 Phe Gln Val Glu Glu Asp Lys Lys Asn Leu Glu Arg Leu Gln Asp Leu
 785 790 795 800

 Val Asp Lys Leu Gln Ala Lys Ile Lys Thr Tyr Lys Arg Gln Leu Glu
 805 810 815

 Glu Ala Glu Glu Val Ala Gln Ile Asn Leu Ser Lys Tyr Arg Lys Ala
 820 825 830

 Gln Arg Glu Leu Glu Asp Ala Glu Glu Arg Ala Asp Thr Ala Glu Arg
 835 840 845

 Ser Leu Asn Lys Leu Arg Ala Lys Ser Arg Arg Thr
 850 855 860

<210> 60
 <211> 134
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Laiminin G
 domain Consensus Sequence

<400> 60
 Phe Arg Thr Thr Glu Pro Ser Gly Leu Leu Leu Tyr Gly Gly Thr Asn
 1 5 10 15

 Thr Asp Arg Asp Phe Leu Ala Leu Glu Leu Arg Asp Gly Arg Leu Glu
 20 25 30

 Val Ser Tyr Asp Leu Gly Ser Gly Pro Ala Val Val Arg Ser Gly Asp
 35 40 45

 Arg Leu Asn Asp Gly Lys Trp His Arg Val Glu Leu Glu Arg Asn Gly
 50 55 60

 Arg Lys Gly Thr Leu Ser Val Asp Gly Glu Glu Ser Val Asp Gly Glu
 65 70 75 80

 Ser Pro Ser Gly Pro Asp Val Pro His Glu Asn Leu Asp Leu Asp Thr
 85 90 95

Pro Leu Tyr Val Gly Gly Leu Pro Glu Leu Ser Val Lys Arg Leu Leu
100 105 110

Ala Ala Ile Ser Thr Ser Phe Lys Gly Cys Ile Arg Asp Val Ile Val
115 120 125

Asn Gly Lys Pro Leu Asp
130

<210> 61
<211> 391
<212> PRT
<213> Homo sapiens

<400> 61
Met Asp Ser Leu Gly Ala Val Ser Thr Arg Leu Gly Phe Asp Leu Phe
1 5 10 15

Lys Glu Leu Lys Lys Thr Asn Asp Gly Asn Ile Phe Phe Ser Pro Val
20 25 30

Gly Ile Leu Thr Ala Ile Gly Met Val Leu Leu Gly Thr Arg Gly Ala
35 40 45

Thr Ala Ser Gln Leu Glu Glu Val Phe His Ser Glu Lys Glu Thr Lys
50 55 60

Ser Ser Arg Ile Lys Ala Glu Glu Lys Glu Val Ile Glu Asn Thr Glu
65 70 75 80

Ala Val His Gln Gln Phe Gln Lys Phe Leu Thr Glu Ile Ser Lys Leu
85 90 95

Thr Asn Asp Tyr Glu Leu Asn Ile Thr Asn Arg Leu Phe Gly Glu Lys
100 105 110

Thr Tyr Leu Phe Leu Gln Lys Tyr Leu Asp Tyr Val Glu Lys Tyr Tyr
115 120 125

His Ala Ser Leu Glu Pro Val Asp Phe Val Asn Ala Ala Asp Glu Ser
130 135 140

Arg Lys Lys Ile Asn Ser Trp Val Glu Ser Lys Thr Asn Glu Lys Ile
145 150 155 160

Lys Asp Leu Phe Pro Asp Gly Ser Ile Ser Ser Ser Thr Lys Leu Val
165 170 175

Leu Val Asn Met Val Tyr Phe Lys Gly Gln Trp Asp Arg Glu Phe Lys
180 185 190

Lys Glu Asn Thr Lys Glu Glu Lys Phe Trp Met Asn Lys Ser Thr Ser
195 200 205

Lys Ser Val Gln Met Met Thr Gln Ser His Ser Phe Ser Phe Thr Phe
210 215 220

Leu Glu Asp Leu Gln Ala Lys Ile Leu Gly Ile Pro Tyr Lys Asn Asn
 225 230 235 240
 Asp Leu Ser Met Phe Val Leu Leu Pro Asn Asp Ile Asp Gly Leu Glu
 245 250 255
 Lys Ile Ile Asp Lys Ile Ser Pro Glu Lys Leu Val Glu Trp Thr Ser
 260 265 270
 Pro Gly His Met Glu Glu Arg Lys Val Asn Leu His Leu Pro Arg Phe
 275 280 285
 Glu Val Glu Asp Gly Tyr Asp Leu Glu Ala Val Leu Ala Ala Met Gly
 290 295 300
 Met Gly Asp Ala Phe Ser Glu His Lys Ala Asp Tyr Ser Gly Met Ser
 305 310 315 320
 Ser Gly Ser Gly Leu Tyr Ala Gln Lys Phe Leu His Ser Ser Phe Val
 325 330 335
 Ala Val Thr Glu Glu Gly Thr Glu Ala Ala Ala Ala Thr Gly Ile Gly
 340 345 350
 Phe Thr Val Thr Ser Ala Pro Gly His Glu Asn Val His Cys Asn His
 355 360 365
 Pro Phe Leu Phe Phe Ile Arg His Asn Glu Ser Asn Ser Ile Leu Phe
 370 375 380
 Phe Gly Arg Phe Ser Ser Pro
 385 390

<210> 62
 <211> 390
 <212> PRT
 <213> Homo sapiens

<400> 62
 Met Asp Ser Leu Gly Ala Val Ser Thr Arg Leu Gly Phe Asp Leu Phe
 1 5 10 15
 Lys Glu Leu Lys Lys Thr Asn Asp Gly Asn Ile Phe Phe Ser Pro Val
 20 25 30
 Gly Ile Leu Thr Ala Ile Gly Met Val Leu Leu Gly Thr Arg Gly Ala
 35 40 45
 Thr Ala Ser Gln Leu Glu Glu Val Phe His Ser Glu Lys Glu Thr Lys
 50 55 60
 Ser Ser Arg Ile Lys Ala Glu Glu Lys Glu Ile Glu Asn Thr Glu Ala
 65 70 75 80
 Val His Gln Gln Phe Gln Lys Phe Leu Thr Glu Ile Ser Lys Leu Thr

85	90	95
Asn Asp Tyr Glu Leu Asn Ile Thr Asn Arg Leu Phe Gly Glu Lys Thr		
100	105	110
Tyr Leu Phe Leu Gln Lys Tyr Leu Asp Tyr Val Glu Lys Tyr Tyr His		
115	120	125
Ala Ser Leu Glu Pro Val Asp Phe Val Asn Ala Ala Asp Glu Ser Arg		
130	135	140
Lys Lys Ile Asn Ser Trp Val Glu Ser Lys Thr Asn Glu Lys Ile Lys		
145	150	155
Asp Leu Phe Pro Asp Gly Ser Ile Ser Ser Ser Thr Lys Leu Val Leu		
165	170	175
Val Asn Met Val Tyr Phe Lys Gly Gln Trp Asp Arg Glu Phe Lys Lys		
180	185	190
Glu Asn Thr Lys Glu Glu Lys Phe Trp Met Asn Lys Ser Thr Ser Lys		
195	200	205
Ser Val Gln Met Met Thr Gln Ser His Ser Phe Ser Phe Thr Phe Leu		
210	215	220
Glu Asp Leu Gln Ala Lys Ile Leu Gly Ile Pro Tyr Lys Asn Asn Asp		
225	230	235
Leu Ser Met Phe Val Leu Leu Pro Asn Asp Ile Asp Gly Leu Glu Lys		
245	250	255
Ile Ile Asp Lys Ile Ser Pro Glu Lys Leu Val Glu Trp Thr Ser Pro		
260	265	270
Gly His Met Glu Glu Arg Lys Val Asn Leu His Leu Pro Arg Phe Glu		
275	280	285
Val Glu Asp Gly Tyr Asp Leu Gln Ala Val Leu Ala Ala Met Gly Met		
290	295	300
Gly Asp Ala Phe Ser Glu His Lys Ala Asp Tyr Ser Gly Met Ser Ser		
305	310	315
320		
Gly Ser Gly Leu Tyr Ala Gln Lys Phe Leu His Ser Ser Phe Val Ala		
325	330	335
Val Thr Glu Glu Gly Thr Glu Ala Ala Ala Thr Gly Ile Gly Phe		
340	345	350
Thr Val Thr Ser Ala Pro Gly His Glu Asn Val His Cys Asn His Pro		
355	360	365
Phe Leu Phe Phe Ile Arg His Asn Glu Ser Asn Ser Ile Leu Phe Phe		
370	375	380
Gly Arg Phe Ser Ser Pro		

385

390

<210> 63
 <211> 391
 <212> PRT
 <213> Homo sapiens

<400> 63
 Met Asp Ser Leu Gly Ala Val Ser Thr Arg Leu Gly Phe Asp Leu Phe
 1 5 10 15
 Lys Glu Leu Lys Lys Thr Asn Asp Gly Asn Ile Phe Phe Ser Pro Val
 20 25 30
 Gly Ile Leu Thr Ala Ile Gly Met Val Leu Leu Gly Thr Arg Gly Ala
 35 40 45
 Thr Ala Ser Gln Leu Glu Glu Val Phe His Ser Glu Lys Glu Thr Lys
 50 55 60
 Ser Ser Arg Ile Lys Ala Glu Glu Lys Glu Val Ile Glu Asn Thr Glu
 65 70 75 80
 Ala Val His Gln Gln Phe Gln Lys Phe Leu Thr Glu Ile Ser Lys Leu
 85 90 95
 Thr Asn Asp Tyr Glu Leu Asn Ile Thr Asn Arg Leu Phe Gly Glu Lys
 100 105 110
 Thr Tyr Leu Phe Leu Gln Lys Tyr Leu Asp Tyr Val Glu Lys Tyr Tyr
 115 120 125
 His Ala Ser Leu Glu Pro Val Asp Phe Val Asn Ala Ala Asp Glu Ser
 130 135 140
 Arg Lys Lys Ile Asn Ser Trp Val Glu Ser Lys Thr Asn Glu Lys Ile
 145 150 155 160
 Lys Asp Leu Phe Pro Asp Gly Ser Ile Ser Ser Ser Thr Lys Leu Val
 165 170 175
 Leu Val Asn Met Val Tyr Phe Lys Gly Gln Trp Asp Arg Glu Phe Lys
 180 185 190
 Lys Glu Asn Thr Lys Glu Glu Lys Phe Trp Met Asn Lys Ser Thr Ser
 195 200 205
 Lys Ser Val Gln Met Met Thr Gln Ser His Ser Phe Ser Phe Thr Phe
 210 215 220
 Leu Glu Asp Leu Gln Ala Lys Ile Leu Gly Ile Pro Tyr Lys Asn Asn
 225 230 235 240
 Asp Leu Ser Met Phe Val Leu Leu Pro Asn Asp Ile Asp Gly Leu Glu
 245 250 255

Lys Ile Ile Asp Lys Ile Ser Pro Glu Lys Leu Val Glu Trp Thr Ser
 260 265 270
 Pro Gly His Met Glu Glu Arg Lys Val Asn Leu His Leu Pro Arg Phe
 275 280 285
 Glu Val Glu Asp Ser Tyr Asp Leu Glu Ala Val Leu Ala Ala Met Gly
 290 295 300
 Met Gly Asp Ala Phe Ser Glu His Lys Ala Asp Tyr Ser Gly Met Ser
 305 310 315 320
 Ser Gly Ser Gly Leu Tyr Ala Gln Lys Phe Leu His Ser Ser Phe Val
 325 330 335
 Ala Val Thr Glu Glu Gly Thr Glu Ala Ala Ala Ala Thr Gly Ile Gly
 340 345 350
 Phe Thr Val Thr Ser Ala Pro Gly His Glu Asn Val His Cys Asn His
 355 360 365
 Pro Phe Leu Phe Phe Ile Arg His Asn Glu Ser Asn Ser Ile Leu Phe
 370 375 380
 Phe Gly Arg Phe Ser Ser Pro
 385 390

<210> 64
 <211> 339
 <212> PRT
 <213> Homo sapiens

<400> 64
 Met Asp Ser Leu Gly Ala Val Asn Thr Arg Leu Gly Phe Asp Leu Phe
 1 5 10 15
 Lys Glu Leu Lys Lys Thr Asn Asp Gly Asn Ile Phe Phe Ser Pro Val
 20 25 30
 Gly Ile Leu Thr Ala Ile Gly Met Val Leu Leu Gly Thr Arg Gly Ala
 35 40 45
 Thr Ala Ser Gln Leu Glu Glu Val Phe His Ser Glu Lys Glu Thr Lys
 50 55 60
 Ser Ser Arg Ile Lys Ala Glu Glu Lys Glu Val Ile Glu Asn Thr Glu
 65 70 75 80
 Ala Val His Gln Gln Phe Gln Lys Phe Leu Thr Glu Ile Ser Lys Leu
 85 90 95
 Thr Asn Asp Tyr Glu Leu Asn Ile Thr Asn Arg Leu Phe Gly Glu Lys
 100 105 110
 Thr Tyr Leu Phe Leu Gln Lys Tyr Leu Asp Tyr Val Glu Lys Tyr Tyr
 115 120 125

His Ala Ser Leu Glu Pro Val Asp Phe Val Asn Ala Ala Asp Glu Ser
 130 135 140
 Arg Lys Lys Ile Asn Ser Trp Val Glu Ser Lys Thr Asn Glu Lys Ile
 145 150 155 160
 Lys Asp Leu Phe Pro Asp Gly Ser Ile Ser Ser Ser Thr Lys Leu Val
 165 170 175
 Leu Val Asn Met Val Tyr Phe Lys Gly Gln Trp Asp Arg Glu Phe Lys
 180 185 190
 Lys Glu Asn Thr Lys Glu Glu Lys Phe Trp Met Asn Lys Ile Ile Asp
 195 200 205
 Lys Ile Ser Pro Glu Lys Leu Val Glu Trp Thr Ser Pro Gly His Met
 210 215 220
 Glu Glu Arg Lys Val Asn Leu His Leu Pro Arg Phe Glu Val Glu Asp
 225 230 235 240
 Gly Tyr Asp Leu Glu Ala Val Leu Ala Ala Met Gly Met Gly Asp Ala
 245 250 255
 Phe Ser Glu His Lys Ala Asp Tyr Ser Gly Met Ser Ser Gly Ser Gly
 260 265 270
 Leu Tyr Ala Gln Lys Phe Leu His Ser Ser Phe Val Ala Val Thr Glu
 275 280 285
 Glu Gly Thr Glu Ala Ala Ala Ala Thr Gly Ile Gly Phe Thr Val Thr
 290 295 300
 Ser Ala Pro Gly His Glu Asn Val His Cys Asn His Pro Phe Leu Phe
 305 310 315 320
 Phe Ile Arg His Asn Glu Ser Asn Ser Ile Leu Phe Phe Gly Arg Phe
 325 330 335
 Ser Ser Pro

<210> 65
 <211> 390
 <212> PRT
 <213> Homo sapiens

<400> 65
 Met Asn Ser Leu Ser Glu Ala Asn Thr Lys Phe Met Phe Asp Leu Phe
 1 5 10 15
 Gln Gln Phe Arg Lys Ser Lys Glu Asn Asn Ile Phe Tyr Ser Pro Ile
 20 25 30
 Ser Ile Thr Ser Ala Leu Gly Met Val Leu Leu Gly Ala Lys Asp Asn

35	40	45
Thr Ala Gln Gln Ile Lys Lys Val Leu His Phe Asp Gln Val Thr Glu		
50	55	60
Asn Thr Thr Gly Lys Ala Ala Thr Tyr His Val Asp Arg Ser Gly Asn		
65	70	75
Val His His Gln Phe Gln Lys Leu Leu Thr Glu Phe Asn Lys Ser Thr		
85	90	95
Asp Ala Tyr Glu Leu Lys Ile Ala Asn Lys Leu Phe Gly Glu Lys Thr		
100	105	110
Tyr Leu Phe Leu Gln Glu Tyr Leu Asp Ala Ile Lys Lys Phe Tyr Gln		
115	120	125
Thr Ser Val Glu Ser Val Asp Phe Ala Asn Ala Pro Glu Glu Ser Arg		
130	135	140
Lys Lys Ile Asn Ser Trp Val Glu Ser Gln Thr Asn Glu Lys Ile Lys		
145	150	155
Asn Leu Ile Pro Glu Gly Asn Ile Gly Ser Asn Thr Thr Leu Val Leu		
165	170	175
Val Asn Ala Ile Tyr Phe Lys Gly Gln Trp Glu Lys Lys Phe Asn Lys		
180	185	190
Glu Asp Thr Lys Glu Glu Lys Phe Trp Pro Asn Lys Asn Thr Tyr Lys		
195	200	205
Ser Ile Gln Met Met Arg Gln Tyr Thr Ser Phe His Phe Ala Ser Leu		
210	215	220
Glu Asp Val Gln Ala Lys Val Leu Glu Ile Pro Tyr Lys Gly Lys Asp		
225	230	235
Leu Ser Met Ile Val Leu Leu Pro Asn Glu Ile Asp Gly Leu Gln Lys		
245	250	255
Leu Glu Glu Lys Leu Thr Ala Glu Lys Leu Met Glu Trp Thr Ser Leu		
260	265	270
Gln Asn Met Arg Glu Thr Arg Val Asp Leu His Leu Pro Arg Phe Lys		
275	280	285
Val Glu Glu Ser Tyr Asp Leu Lys Asp Thr Leu Arg Thr Met Gly Met		
290	295	300
Val Asp Ile Phe Asn Gly Asp Ala Asp Leu Ser Gly Met Thr Gly Ser		
305	310	315
Arg Gly Leu Val Leu Ser Gly Val Leu His Lys Ala Phe Val Glu Val		
325	330	335
Thr Glu Glu Gly Ala Glu Ala Ala Ala Thr Ala Val Val Gly Phe		

340

345

350

Gly Ser Ser Pro Ala Ser Thr Asn Glu Glu Phe His Cys Asn His Pro
355 360 365

Phe Leu Phe Phe Ile Arg Gln Asn Lys Thr Asn Ser Ile Leu Phe Tyr
370 375 380

Gly Arg Phe Ser Ser Pro
385 390

<210> 66

<211> 377

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Serpin
Consensus Sequence

<400> 66

Asp Ser Ser Arg Ala Leu Lys Leu Ala Ser Ala Asn Ala Asp Phe Ala
1 5 10 15

Phe Ser Leu Tyr Lys Glu Leu Val Glu Gln Asn Pro Asp Lys Asn Ile
20 25 30

Phe Phe Ser Pro Val Ser Ile Ser Ser Ala Leu Ala Met Leu Ser Leu
35 40 45

Gly Ala Lys Gly Asn Thr Ala Thr Gln Ile Leu Glu Val Leu Gly Phe
50 55 60

Asn Leu Thr Glu Thr Ser Glu Ala Glu Ile His Gln Gly Phe Gln His
65 70 75 80

Leu Leu Gln Glu Leu Asn Arg Pro Asp Thr Gly Leu Gln Leu Thr Thr
85 90 95

Gly Asn Ala Leu Phe Val Asp Lys Ser Leu Lys Leu Asp Glu Phe
100 105 110

Leu Glu Asp Ser Lys Arg Leu Tyr Gln Ser Glu Val Phe Ser Val Asp
115 120 125

Phe Ser Asp Pro Glu Glu Ala Lys Lys Gln Ile Asn Asp Trp Val Glu
130 135 140

Lys Lys Thr Gln Gly Lys Ile Lys Asp Leu Leu Lys Asp Leu Asp Ser
145 150 155 160

Asp Thr Val Leu Val Leu Val Asn Tyr Ile Tyr Phe Lys Gly Lys Trp
165 170 175

Lys Lys Pro Phe Asp Pro Glu Leu Thr Glu Glu Asp Phe His Val
180 185 190

Asp	Lys	Lys	Thr	Thr	Val	Lys	Val	Pro	Met	Met	Asn	Gln	Leu	Gly	Thr
195					200						205				
Phe	Tyr	Tyr	Phe	Arg	Asp	Glu	Glu	Leu	Asn	Cys	Lys	Val	Leu	Glu	Leu
210					215						220				
Pro	Tyr	Lys	Gly	Asn	Ala	Thr	Ser	Met	Leu	Phe	Ile	Leu	Pro	Asp	Glu
225					230					235			240		
Val	Gly	Lys	Leu	Glu	Gln	Val	Glu	Ala	Ala	Leu	Ser	Pro	Glu	Thr	Leu
	245					250					255				
Arg	Lys	Trp	Leu	Glu	Asn	Met	Glu	Pro	Arg	Glu	Val	Glu	Leu	Tyr	Leu
		260				265			265		270				
Pro	Lys	Phe	Ser	Ile	Glu	Gly	Thr	Tyr	Asp	Leu	Lys	Asp	Val	Leu	Ala
		275				280					285				
Lys	Leu	Gly	Ile	Thr	Asp	Leu	Phe	Ser	Asn	Gln	Ala	Asp	Leu	Ser	Gly
	290				295					300					
Ile	Ser	Glu	Asp	Glu	Asp	Leu	Lys	Val	Ser	Lys	Ala	Val	His	Lys	Ala
305					310				315			320			
Val	Leu	Glu	Val	Asp	Glu	Glu	Gly	Thr	Glu	Ala	Ala	Ala	Ala	Thr	Gly
		325				330				335					
Ala	Ile	Ile	Val	Pro	Arg	Ser	Leu	Pro	Pro	Glu	Leu	Glu	Phe	Thr	Ala
		340				345			345		350				
Asp	Arg	Pro	Phe	Leu	Phe	Leu	Ile	Tyr	Asp	Asp	Pro	Thr	Gly	Ser	Ile
		355				360					365				
Leu	Phe	Met	Gly	Lys	Val	Val	Asn	Pro							
		370			375										

<210> 67

<211> 360

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Serpin
Consensus Sequence

<400> 67

Phe	Asp	Leu	Tyr	Lys	Glu	Leu	Ala	Lys	Glu	Ser	Pro	Asp	Lys	Asn	Ile
1				5				10				15			

Phe	Phe	Ser	Pro	Val	Ser	Ile	Ser	Ser	Ala	Leu	Ala	Met	Leu	Ser	Leu
				20				25				30			

Gly	Ala	Lys	Gly	Ser	Thr	Ala	Thr	Gln	Ile	Leu	Glu	Val	Leu	Gly	Phe
				35				40			45				

Asn Leu Thr Glu Thr Ser Glu Ala Asp Ile His Gln Gly Phe Gln His
 50 55 60

Leu Leu His Leu Leu Asn Arg Pro Asp Asn Lys Leu Gln Leu Lys Thr
 65 70 75 80

Ala Asn Ala Leu Phe Val Asp Lys Ser Leu Lys Leu Leu Asp Ser Phe
 85 90 95

Leu Glu Asp Val Lys Lys Leu Tyr Gly Ala Glu Val Gln Ser Val Asp
 100 105 110

Phe Ser Asp Pro Ala Glu Ala Lys Lys Gln Ile Asn Asp Trp Val
 115 120 125

Lys Lys Lys Thr Gln Gly Lys Ile Lys Asp Leu Leu Ser Asp Leu Asp
 130 135 140

Pro Asp Thr Arg Leu Val Leu Val Asn Ala Ile Tyr Phe Lys Gly Lys
 145 150 155 160

Trp Lys Thr Pro Phe Asp Pro Glu Asn Thr Arg Glu Glu Asp Phe Tyr
 165 170 175

Val Asp Glu Thr Thr Thr Val Lys Val Pro Met Met Ser Gln Thr Gly
 180 185 190

Arg Thr Phe Arg Tyr Gly Arg Asp Glu Glu Leu Asn Cys Gln Val Leu
 195 200 205

Glu Leu Pro Tyr Lys Gly Asn Ala Ser Met Leu Ile Ile Leu Pro Asp
 210 215 220

Glu Gly Gly Leu Glu Thr Val Glu Lys Ala Leu Thr Pro Glu Thr Leu
 225 230 235 240

Lys Lys Trp Thr Lys Ser Leu Thr Lys Arg Ser Val Glu Leu Tyr Leu
 245 250 255

Pro Lys Phe Lys Leu Glu Ile Ser Tyr Asp Leu Lys Asp Val Leu Glu
 260 265 270

Lys Leu Gly Ile Thr Asp Leu Phe Ser Asn Lys Ala Asp Leu Ser Gly
 275 280 285

Ile Ser Glu Asp Lys Asp Leu Lys Val Ser Lys Val Val His Lys Ala
 290 295 300

Phe Leu Glu Val Asn Glu Glu Gly Thr Glu Ala Ala Ala Ala Thr Gly
 305 310 315 320

Val Ile Ile Val Pro Arg Ser Leu Pro Pro Pro Glu Phe Lys Ala Asn
 325 330 335

Arg Pro Phe Leu Phe Leu Ile Arg Asp Asn Pro Thr Gly Ser Ile Leu
 340 345 350

Phe Met Gly Lys Val Val Asn Pro
355 360

<210> 68
<211> 1697
<212> PRT
<213> Homo sapiens

<400> 68
Ile Arg His Glu Val Phe Leu Ser Arg Ser Tyr Gln Arg Leu Ala Asp
1 5 10 15
Ala Cys Arg Gly Leu Leu Ala Leu Leu Phe Pro Leu Arg Tyr Ser Phe
20 25 30
Thr Tyr Val Pro Ile Leu Pro Ala Gln Leu Leu Glu Val Leu Ser Thr
35 40 45
Pro Thr Pro Phe Ile Ile Gly Val Asn Ala Ala Phe Gln Ala Glu Thr
50 55 60
Gln Glu Leu Leu Asp Val Ile Val Ala Asp Leu Asp Gly Gly Thr Val
65 70 75 80
Thr Ile Pro Glu Cys Val His Ile Pro Pro Leu Pro Glu Pro Leu Gln
85 90 95
Ser Gln Thr His Ser Val Leu Ser Met Val Leu Asp Pro Glu Leu Glu
100 105 110
Leu Ala Asp Leu Ala Phe Pro Pro Pro Thr Thr Ser Thr Ser Ser Leu
115 120 125
Lys Met Gln Asp Lys Glu Leu Arg Ala Val Phe Leu Arg Leu Phe Ala
130 135 140
Gln Leu Leu Gln Gly Tyr Arg Trp Cys Leu His Val Val Arg Ile His
145 150 155 160
Pro Glu Pro Val Ile Arg Phe His Lys Ala Ala Phe Leu Gly Gln Arg
165 170 175
Gly Leu Val Glu Asp Asp Phe Leu Met Lys Val Leu Glu Gly Met Ala
180 185 190
Phe Ala Gly Phe Val Ser Glu Arg Gly Val Pro Tyr Arg Pro Thr Asp
195 200 205
Leu Phe Asp Glu Leu Val Ala His Glu Val Ala Arg Met Arg Ala Asp
210 215 220
Glu Asn His Pro Gln Arg Val Leu Arg His Val Gln Glu Leu Ala Glu
225 230 235 240
Gln Leu Tyr Lys Asn Glu Asn Pro Tyr Pro Ala Val Ala Met His Lys
245 250 255

Val Gln Arg Pro Gly Glu Ser Ser His Leu Arg Arg Val Pro Arg Pro
 260 265 270
 Phe Pro Arg Leu Asp Glu Gly Thr Val Gln Trp Ile Val Asp Gln Ala
 275 280 285
 Ala Ala Lys Met Gln Gly Ala Pro Pro Ala Val Lys Ala Glu Arg Arg
 290 295 300
 Thr Thr Val Pro Ser Gly Pro Pro Met Thr Ala Ile Leu Glu Arg Cys
 305 310 315 320
 Ser Gly Leu His Val Asn Ser Ala Arg Arg Leu Glu Val Val Arg Asn
 325 330 335
 Cys Ile Ser Tyr Val Phe Glu Gly Lys Met Leu Glu Ala Lys Lys Leu
 340 345 350
 Leu Pro Ala Val Leu Arg Ala Leu Lys Gly Arg Val Ala Arg Arg Cys
 355 360 365
 Leu Ala Gln Glu Leu His Leu His Val Gln Gln Asn Arg Ala Val Leu
 370 375 380
 Asp His Gln Gln Phe Asp Phe Val Val Arg Met Met Asn Cys Cys Leu
 385 390 395 400
 Gln Asp Cys Thr Ser Leu Asp Glu His Gly Ile Ala Ala Ala Leu Leu
 405 410 415
 Pro Leu Val Thr Ala Phe Cys Arg Lys Leu Ser Pro Gly Val Thr Gln
 420 425 430
 Phe Ala Tyr Ser Cys Val Gln Glu His Val Val Trp Ser Thr Pro Gln
 435 440 445
 Phe Trp Glu Ala Met Phe Tyr Gly Asp Val Gln Thr His Ile Arg Ala
 450 455 460
 Leu Tyr Leu Glu Pro Thr Glu Asp Leu Ala Pro Ala Gln Glu Val Gly
 465 470 475 480
 Glu Ala Pro Ser Gln Glu Asp Glu Arg Ser Ala Leu Asp Val Ala Ser
 485 490 495
 Glu Gln Arg Arg Leu Trp Pro Thr Leu Ser Arg Glu Lys Gln Gln Glu
 500 505 510
 Leu Val Gln Lys Glu Glu Ser Thr Val Phe Ser Gln Ala Ile His Tyr
 515 520 525
 Ala Asn Arg Met Ser Tyr Leu Leu Leu Pro Leu Asp Ser Ser Lys Ser
 530 535 540
 Arg Leu Leu Arg Glu Arg Ala Gly Leu Gly Asp Leu Glu Ser Ala Ser
 545 550 555 560

Asn Ser Leu Val Thr Asn Ser Met Ala Gly Ser Val Ala Glu Ser Tyr
 565 570 575
 Asp Thr Glu Ser Gly Phe Glu Asp Ala Glu Thr Cys Asp Val Ala Gly
 580 585 590
 Ala Val Val Arg Phe Ile Asn Arg Phe Val Asp Lys Val Cys Thr Glu
 595 600 605
 Ser Gly Val Thr Ser Asp His Leu Lys Gly Leu His Val Met Val Pro
 610 615 620
 Asp Ile Val Gln Met His Ile Glu Thr Leu Glu Ala Val Gln Arg Glu
 625 630 635 640
 Ser Arg Arg Leu Pro Pro Ile Gln Lys Pro Lys Leu Leu Arg Pro Arg
 645 650 655
 Leu Leu Pro Gly Glu Glu Cys Val Leu Asp Gly Leu Arg Val Tyr Leu
 660 665 670
 Leu Pro Asp Gly Arg Glu Glu Gly Ala Gly Ser Ala Gly Gly Pro
 675 680 685
 Ala Leu Leu Pro Ala Glu Gly Ala Val Phe Leu Thr Thr Tyr Arg Val
 690 695 700
 Ile Phe Thr Gly Met Pro Thr Asp Pro Leu Val Gly Glu Gln Val Val
 705 710 715 720
 Val Arg Ser Phe Pro Val Ala Ala Leu Thr Lys Glu Lys Arg Ile Ser
 725 730 735
 Val Gln Thr Pro Val Asp Gln Leu Leu Gln Asp Gly Leu Gln Leu Arg
 740 745 750
 Ser Cys Thr Phe Gln Leu Leu Lys Met Ala Phe Asp Glu Glu Val Gly
 755 760 765
 Ser Asp Ser Ala Glu Leu Phe Arg Lys Gln Leu His Lys Leu Arg Tyr
 770 775 780
 Pro Pro Asp Ile Arg Ala Thr Phe Ala Phe Thr Leu Gly Ser Ala His
 785 790 795 800
 Thr Pro Gly Arg Pro Pro Arg Val Thr Lys Asp Lys Gly Pro Ser Leu
 805 810 815
 Arg Thr Leu Ser Arg Asn Leu Val Lys Asn Ala Lys Lys Thr Ile Gly
 820 825 830
 Arg Gln His Val Thr Arg Lys Lys Tyr Asn Pro Pro Ser Trp Glu His
 835 840 845
 Arg Gly Gln Pro Pro Pro Glu Asp Gln Glu Asp Glu Ile Ser Val Ser
 850 855 860

Glu Glu Leu Glu Pro Ser Thr Leu Thr Pro Ser Ser Ala Leu Lys Pro
 865 870 875 880
 Ser Asp Arg Met Thr Met Ser Ser Leu Val Glu Arg Ala Cys Cys Arg
 885 890 895
 Asp Tyr Gln Arg Leu Gly Leu Gly Thr Leu Ser Ser Ser Leu Ser Arg
 900 905 910
 Ala Lys Ser Glu Pro Phe Arg Ile Ser Pro Val Asn Arg Met Tyr Ala
 915 920 925
 Ile Cys Arg Ser Tyr Pro Gly Leu Leu Ile Val Arg Gln Ser Val Gln
 930 935 940
 Asp Asn Ala Leu Gln Arg Val Ser Arg Cys Tyr Arg Gln Asn Arg Phe
 945 950 955 960
 Pro Val Val Cys Trp Arg Ser Gly Arg Ser Lys Ala Val Leu Leu Arg
 965 970 975
 Ser Gly Gly Leu His Gly Lys Gly Val Val Gly Leu Phe Lys Ala Gln
 980 985 990
 Asn Ala Pro Ser Pro Gly Gln Ser Gln Ala Asp Ser Ser Ser Leu Glu
 995 1000 1005
 Gln Glu Lys Tyr Leu Gln Ala Val Val Ser Ser Met Pro Arg Tyr Ala
 1010 1015 1020
 Asp Ala Ser Gly Arg Asn Thr Leu Ser Gly Phe Ser Ser Ala His Met
 1025 1030 1035 1040
 Gly Ser His Gly Lys Trp Gly Ser Val Arg Thr Ser Gly Arg Ser Ser
 1045 1050 1055
 Gly Leu Gly Thr Asp Val Gly Ser Arg Leu Ala Gly Arg Asp Ala Leu
 1060 1065 1070
 Ala Pro Pro Gln Ala Asn Gly Gly Pro Pro Asp Pro Gly Phe Leu Arg
 1075 1080 1085
 Pro Gln Arg Ala Ala Leu Tyr Ile Leu Gly Asp Lys Ala Gln Leu Lys
 1090 1095 1100
 Gly Val Arg Ser Asp Pro Leu Gln Gln Trp Glu Leu Val Pro Ile Glu
 1105 1110 1115 1120
 Val Phe Glu Ala Arg Gln Val Lys Ala Ser Phe Lys Lys Leu Leu Lys
 1125 1130 1135
 Ala Cys Val Pro Gly Cys Pro Ala Ala Glu Pro Ser Pro Ala Ser Phe
 1140 1145 1150
 Leu Arg Ser Leu Glu Asp Ser Glu Trp Leu Ile Gln Ile His Lys Leu
 1155 1160 1165

Leu Gln Val Ser Val Leu Val Val Glu Leu Leu Asp Ser Gly Ser Ser
 1170 1175 1180

 Val Leu Val Gly Leu Glu Asp Gly Trp Asp Ile Thr Thr Gln Val Val
 1185 1190 1195 1200

 Ser Leu Val Gln Leu Leu Ser Asp Pro Phe Tyr Arg Thr Leu Glu Gly
 1205 1210 1215

 Phe Arg Leu Leu Val Glu Lys Glu Trp Leu Ser Phe Gly His Arg Phe
 1220 1225 1230

 Ser His Arg Gly Ala His Thr Leu Ala Gly Gln Ser Ser Gly Phe Thr
 1235 1240 1245

 Pro Val Phe Leu Gln Phe Leu Asp Cys Val His Gln Val His Leu Gln
 1250 1255 1260

 Phe Pro Met Glu Phe Glu Phe Ser Gln Phe Tyr Leu Lys Phe Leu Gly
 1265 1270 1275 1280

 Tyr His His Val Ser Arg Arg Phe Arg Thr Phe Leu Leu Asp Ser Asp
 1285 1290 1295

 Tyr Glu Arg Ile Glu Leu Gly Leu Leu Tyr Glu Glu Lys Gly Glu Arg
 1300 1305 1310

 Arg Gly Gln Val Pro Cys Arg Ser Val Trp Glu Tyr Val Asp Arg Leu
 1315 1320 1325

 Ser Lys Arg Thr Pro Val Phe His Asn Tyr Met Tyr Ala Pro Glu Asp
 1330 1335 1340

 Ala Glu Val Leu Arg Pro Tyr Ser Asn Val Ser Asn Leu Lys Val Trp
 1345 1350 1355 1360

 Asp Phe Tyr Thr Glu Glu Thr Leu Ala Glu Ala Leu Pro Met Thr Gly
 1365 1370 1375

 Asn Trp Pro Arg Gly Pro Leu Asn Pro Gln Arg Lys Asn Gly Leu Met
 1380 1385 1390

 Glu Ala Ser Pro Glu Gln Arg Arg Val Val Trp Pro Cys Tyr Asp Ser
 1395 1400 1405

 Cys Pro Arg Ala Gln Pro Asp Ala Ile Ser Arg Leu Leu Glu Glu Leu
 1410 1415 1420

 Gln Arg Leu Glu Thr Glu Leu Gly Gln Pro Ala Glu Arg Trp Lys Asp
 1425 1430 1435 1440

 Thr Trp Asp Arg Val Lys Ala Ala Gln Arg Leu Glu Gly Arg Pro Asp
 1445 1450 1455

 Gly Arg Gly Thr Pro Ser Ser Leu Leu Val Ser Thr Ala Pro His His
 1460 1465 1470

Arg Arg Ser Leu Gly Val Tyr Leu Gln Glu Gly Pro Val Gly Ser Thr
 1475 1480 1485

 Leu Ser Leu Ser Leu Asp Ser Asp Gln Ser Ser Gly Ser Thr Thr Ser
 1490 1495 1500

 Gly Ser Arg Gln Ala Ala Arg Arg Ser Thr Ser Thr Leu Tyr Ser Gln
 1505 1510 1515 1520

 Phe Gln Thr Ala Glu Ser Glu Asn Arg Ser Tyr Glu Gly Thr Leu Tyr
 1525 1530 1535

 Lys Lys Gly Ala Phe Met Lys Pro Trp Lys Ala Arg Trp Phe Val Leu
 1540 1545 1550

 Asp Lys Thr Lys His Gln Leu Arg Tyr Tyr Asp His Arg Val Asp Thr
 1555 1560 1565

 Glu Cys Lys Gly Val Ile Asp Leu Ala Glu Val Glu Ala Val Ala Pro
 1570 1575 1580

 Gly Thr Pro Thr Met Gly Ala Pro Lys Thr Val Asp Glu Lys Ala Phe
 1585 1590 1595 1600

 Phe Asp Val Lys Thr Thr Arg Arg Val Tyr Asn Phe Cys Ala Gln Asp
 1605 1610 1615

 Val Pro Ser Ala Gln Gln Trp Val Asp Arg Ile Gln Ser Cys Cys Arg
 1620 1625 1630

 Thr Pro Glu Pro Pro Ser Pro Ala Arg Leu Leu Cys Ser Arg Tyr Arg
 1635 1640 1645

 Pro Leu Gly Val Ala Gly Pro Pro Arg Pro Cys Leu Gln Pro Arg Pro
 1650 1655 1660

 Ser Thr Val Leu Ser Pro Glu Pro Pro Ala Leu Val Cys Thr Ala Pro
 1665 1670 1675 1680

 Val Pro Ala Pro Pro Arg Pro Ala Gly Pro Asn Leu Phe Trp Arg His
 1685 1690 1695

Ser

<210> 69
 <211> 552
 <212> PRT
 <213> Homo sapiens

<400> 69
 Asp Leu Phe Phe Lys Tyr Thr Trp Asn Asn Phe Leu His Phe Gln Val
 1 5 10 15

Glu Leu Cys Ile Ala Ala Ile Leu Ser His Ala Ala Arg Glu Glu Arg

20	25	30
Thr Glu Ala Ser Gly Ser Glu Ser Arg Val Glu Pro Pro His Glu Asn		
35	40	45
Gly Asn Arg Ser Leu Glu Thr Pro Gln Pro Ala Ala Ser Leu Pro Asp		
50	55	60
Asn Thr Met Val Thr His Leu Phe Gln Lys Cys Cys Leu Val Gln Arg		
65	70	75
Ile Leu Glu Ala Trp Glu Ala Asn Asp His Thr Gln Ala Ala Gly Gly		
85	90	95
Met Arg Arg Gly Asn Met Gly His Leu Thr Arg Ile Ala Asn Ala Val		
100	105	110
Val Gln Asn Leu Glu Arg Gly Pro Val Gln Thr His Ile Ser Glu Val		
115	120	125
Ile Arg Gly Leu Pro Ala Asp Cys Arg Gly Arg Trp Glu Ser Phe Val		
130	135	140
Glu Glu Thr Leu Thr Glu Thr Asn Arg Arg Asn Thr Val Asp Leu Ala		
145	150	155
160		
Phe Ser Asp Tyr Gln Ile Gln Gln Met Thr Ala Asn Phe Val Asp Gln		
165	170	175
Phe Gly Phe Asn Asp Glu Glu Phe Ala Asp Gln Asp Asp Asn Ile Asn		
180	185	190
Ala Pro Phe Asp Arg Ile Ala Glu Ile Asn Phe Asn Ile Asp Ala Asp		
195	200	205
Glu Asp Ser Pro Ser Ala Ala Leu Phe Glu Ala Cys Cys Ser Asp Arg		
210	215	220
Ile Gln Pro Phe Asp Asp Asp Glu Asp Glu Asp Ile Trp Glu Asp Ser		
225	230	235
240		
Asp Thr Arg Cys Ala Ala Arg Val Met Ala Arg Pro Arg Phe Gly Ala		
245	250	255
Pro His Ala Ser Glu Ser Cys Ser Lys Asn Gly Pro Glu Arg Gly Gly		
260	265	270
Gln Asp Gly Lys Ala Ser Leu Glu Ala His Arg Asp Ala Pro Gly Ala		
275	280	285
Gly Ala Pro Pro Ala Pro Gly Lys Lys Glu Ala Pro Pro Val Glu Gly		
290	295	300
Asp Ser Glu Ala Gly Ala Met Trp Thr Ala Val Phe Asp Glu Pro Ala		
305	310	315
320		
Asn Ser Thr Pro Thr Ala Pro Gly Val Val Arg Asp Val Gly Ser Ser		

325	330	335	
Val Trp Ala Ala Gly Thr Ser Ala Pro Glu Glu Lys Gly Trp Ala Lys			
340	345	350	
Phe Thr Asp Phe Gln Pro Phe Cys Cys Ser Glu Ser Gly Pro Arg Cys			
355	360	365	
Ser Ser Pro Val Asp Thr Glu Cys Ser His Ala Glu Gly Ser Arg Ser			
370	375	380	
Gln Gly Pro Glu Lys Ala Phe Ser Pro Ala Ser Pro Cys Ala Trp Asn			
385	390	395	400
Val Cys Val Thr Arg Lys Ala Pro Leu Leu Ala Ser Asp Ser Ser Ser			
405	410	415	
Ser Gly Gly Ser His Ser Glu Asp Gly Asp Gln Lys Ala Ala Ser Ala			
420	425	430	
Met Asp Ala Val Ser Arg Gly Pro Gly Arg Glu Ala Pro Pro Leu Pro			
435	440	445	
Thr Val Ala Arg Thr Glu Glu Ala Val Gly Arg Val Gly Cys Ala Asp			
450	455	460	
Ser Arg Leu Leu Ser Pro Ala Cys Pro Ala Pro Lys Glu Val Thr Ala			
465	470	475	480
Ala Pro Ala Val Ala Val Pro Pro Glu Ala Thr Val Ala Ile Thr Thr			
485	490	495	
Ala Leu Ser Lys Ala Gly Pro Ala Ile Pro Thr Pro Ala Val Ser Ser			
500	505	510	
Ala Leu Ala Val Ala Val Pro Leu Gly Pro Ile Met Ala Val Thr Ala			
515	520	525	
Ala Pro Ala Met Val Ala Thr Leu Gly Thr Val Thr Lys Asp Gly Gln			
530	535	540	
Met Pro Arg Gln Lys Glu Leu Pro			
545	550		
<210> 70			
<211> 1327			
<212> PRT			
<213> Homo sapiens			
<400> 70			
Met Ser Ala Pro Ser Ser Ser Pro Arg Ala Ala Glu Pro Ala Arg Ala			
1	5	10	15
Pro Arg Ala Ala Pro Arg Pro Ser Pro Trp Arg Gly Ser Arg Thr Thr			
20	25	30	

Ser Cys Trp Trp Arg Ser Gly Arg Thr Arg Ala Gly Ser Gly Glu Gly
 35 40 45

 Gln Gly Gln Ile Leu Gln Arg Phe Pro Glu Lys Asp Trp Glu Asp Asn
 50 55 60 80

 Pro Phe Pro Gln Gly Ile Glu Leu Phe Cys Gln Pro Ser Gly Trp Gln
 65 70 75 80

 Leu Cys Pro Glu Arg Asn Pro Pro Thr Phe Phe Val Ala Val Leu Thr
 85 90 95

 Asp Ile Asn Ser Glu Arg His Tyr Cys Ala Cys Leu Thr Phe Trp Glu
 100 105 110

 Pro Ala Glu Pro Ser Gln Glu Thr Thr Arg Val Glu Asp Ala Thr Glu
 115 120 125

 Arg Glu Glu Glu Gly Asp Glu Gly Gln Thr His Leu Ser Pro Thr
 130 135 140

 Ala Pro Ala Pro Ser Ala Gln Leu Phe Ala Pro Lys Thr Leu Val Leu
 145 150 155 160

 Val Ser Arg Leu Asp His Thr Glu Val Phe Arg Asn Ser Leu Gly Leu
 165 170 175

 Ile Tyr Ala Ile His Val Glu Gly Leu Asn Val Cys Leu Glu Asn Val
 180 185 190

 Ile Gly Asn Leu Leu Thr Cys Thr Val Pro Leu Ala Gly Gly Ser Gln
 195 200 205

 Arg Thr Ile Ser Leu Gly Ala Gly Asp Arg Gln Val Ile Gln Thr Pro
 210 215 220

 Leu Ala Asp Ser Leu Pro Val Ser Arg Cys Ser Val Ala Leu Leu Phe
 225 230 235 240

 Arg Gln Leu Gly Ile Thr Asn Val Leu Ser Leu Phe Cys Ala Ala Leu
 245 250 255

 Thr Glu His Lys Val Leu Phe Leu Ser Arg Ser Tyr Gln Arg Leu Ala
 260 265 270

 Asp Ala Cys Arg Gly Leu Leu Ala Leu Leu Phe Pro Leu Arg Tyr Ser
 275 280 285

 Phe Thr Tyr Val Pro Ile Leu Pro Ala Gln Leu Leu Glu Val Leu Ser
 290 295 300

 Thr Pro Thr Pro Phe Ile Ile Gly Val Asn Ala Ala Phe Gln Ala Glu
 305 310 315 320

 Thr Gln Glu Leu Leu Asp Val Ile Val Ala Asp Leu Asp Gly Gly Thr
 325 330 335

Val Thr Ile Pro Glu Cys Val His Ile Pro Pro Leu Pro Glu Pro Leu
 340 345 350
 Gln Ser Gln Thr His Ser Val Leu Ser Met Val Leu Asp Pro Glu Leu
 355 360 365
 Glu Leu Ala Asp Leu Ala Phe Pro Pro Pro Thr Thr Ser Thr Ser Ser
 370 375 380
 Leu Lys Met Gln Asp Lys Glu Leu Arg Ala Val Phe Leu Arg Leu Phe
 385 390 395 400
 Ala Gln Leu Leu Gln Gly Tyr Arg Trp Cys Leu His Val Val Arg Ile
 405 410 415
 His Pro Glu Pro Val Ile Arg Phe His Lys Ala Ala Phe Leu Gly Gln
 420 425 430
 Arg Gly Leu Val Glu Asp Asp Phe Leu Met Lys Val Leu Glu Gly Met
 435 440 445
 Ala Phe Ala Gly Phe Val Ser Glu Arg Gly Val Pro Tyr Arg Pro Thr
 450 455 460
 Asp Leu Phe Asp Glu Leu Val Ala His Glu Val Ala Arg Met Arg Ala
 465 470 475 480
 Asp Glu Asn His Pro Gln Arg Val Leu Arg His Val Gln Glu Leu Ala
 485 490 495
 Glu Gln Leu Tyr Lys Asn Glu Asn Pro Tyr Pro Ala Val Ala Met His
 500 505 510
 Lys Val Gln Arg Pro Gly Glu Ser Ser His Leu Arg Arg Val Pro Arg
 515 520 525
 Pro Phe Pro Arg Leu Asp Glu Gly Thr Val Gln Trp Ile Val Asp Gln
 530 535 540
 Ala Ala Ala Lys Met Gln Gly Ala Pro Pro Ala Val Lys Ala Glu Arg
 545 550 555 560
 Arg Thr Thr Val Pro Ser Gly Pro Pro Met Thr Ala Ile Leu Glu Arg
 565 570 575
 Cys Ser Gly Leu His Val Asn Ser Ala Arg Arg Leu Glu Val Val Arg
 580 585 590
 Asn Cys Ile Ser Tyr Val Phe Glu Gly Lys Met Leu Glu Ala Lys Lys
 595 600 605
 Leu Leu Pro Ala Val Leu Arg Ala Leu Lys Gly Arg Ala Ala Arg Arg
 610 615 620
 Cys Leu Ala Gln Glu Leu His Leu His Val Gln Gln Asn Arg Ala Val
 625 630 635 640

Leu Asp His Gln Gln Phe Asp Phe Val Val Arg Met Met Asn Cys Cys
 645 650 655
 Leu Gln Asp Cys Thr Ser Leu Asp Glu His Gly Ile Ala Ala Ala Leu
 660 665 670
 Leu Pro Leu Val Thr Ala Phe Cys Arg Lys Leu Ser Pro Gly Val Thr
 675 680 685
 Gln Phe Ala Tyr Ser Cys Val Gln Glu His Val Val Trp Ser Thr Pro
 690 695 700
 Gln Phe Trp Glu Ala Met Phe Tyr Gly Asp Val Gln Thr His Ile Arg
 705 710 715 720
 Ala Leu Tyr Leu Glu Pro Thr Glu Asp Leu Ala Pro Ala Gln Glu Val
 725 730 735
 Gly Glu Ala Pro Ser Gln Glu Asp Glu Arg Ser Ala Leu Asp Val Ala
 740 745 750
 Ser Glu Gln Arg Arg Leu Trp Pro Thr Leu Ser Arg Glu Lys Gln Gln
 755 760 765
 Glu Leu Val Gln Lys Glu Glu Ser Thr Val Phe Ser Gln Ala Ile His
 770 775 780
 Tyr Ala Asn Arg Met Ser Tyr Leu Leu Leu Pro Leu Asp Ser Ser Lys
 785 790 795 800
 Ser Arg Leu Leu Arg Glu Arg Ala Gly Leu Gly Asp Leu Glu Ser Ala
 805 810 815
 Ser Asn Ser Leu Val Thr Asn Ser Met Ala Gly Ser Val Ala Glu Ser
 820 825 830
 Tyr Asp Thr Glu Ser Gly Phe Glu Asp Ala Glu Thr Cys Asp Val Ala
 835 840 845
 Gly Ala Val Val Arg Phe Ile Asn Arg Phe Val Asp Lys Val Cys Thr
 850 855 860
 Glu Ser Gly Val Thr Ser Asp His Leu Lys Gly Leu His Val Met Val
 865 870 875 880
 Pro Asp Ile Val Gln Met His Ile Glu Thr Leu Glu Ala Val Gln Arg
 885 890 895
 Glu Ser Arg Arg Leu Pro Pro Ile Gln Lys Pro Lys Leu Leu Arg Pro
 900 905 910
 Arg Leu Leu Pro Gly Glu Glu Cys Val Leu Asp Gly Leu Arg Val Tyr
 915 920 925
 Leu Leu Pro Asp Gly Arg Glu Glu Gly Ala Gly Gly Ser Ala Gly Gly
 930 935 940

Pro Ala Leu Leu Pro Ala Glu Gly Ala Val Phe Leu Thr Thr Tyr Arg
 945 950 955 960
 Val Ile Phe Thr Gly Met Pro Thr Asp Pro Leu Val Gly Glu Gln Val
 965 970 975
 Val Val Arg Ser Phe Pro Val Ala Ala Leu Thr Lys Glu Lys Arg Ile
 980 985 990
 Ser Val Gln Thr Pro Val Asp Gln Leu Leu Gln Asp Gly Leu Gln Leu
 995 1000 1005
 Arg Ser Cys Thr Phe Gln Leu Leu Lys Met Ala Phe Asp Glu Glu Val
 1010 1015 1020
 Gly Ser Asp Ser Ala Glu Leu Phe Arg Lys Gln Leu His Lys Leu Arg
 1025 1030 1035 1040
 Tyr Pro Pro Asp Ile Arg Ala Thr Phe Ala Phe Thr Leu Gly Ser Ala
 1045 1050 1055
 His Thr Pro Gly Arg Pro Pro Arg Val Thr Lys Asp Lys Gly Pro Ser
 1060 1065 1070
 Leu Arg Thr Leu Ser Arg Asn Leu Val Lys Asn Ala Lys Lys Thr Ile
 1075 1080 1085
 Gly Arg Gln His Val Thr Arg Lys Lys Tyr Asn Pro Pro Ser Trp Glu
 1090 1095 1100
 His Arg Gly Gln Pro Pro Pro Glu Asp Gln Glu Asp Glu Ile Ser Val
 1105 1110 1115 1120
 Ser Glu Glu Leu Glu Pro Ser Thr Leu Thr Pro Ser Ser Ala Leu Lys
 1125 1130 1135
 Pro Ser Asp Arg Met Thr Met Ser Ser Leu Val Glu Arg Ala Cys Cys
 1140 1145 1150
 Arg Asp Tyr Gln Arg Leu Gly Leu Gly Thr Leu Ser Ser Ser Leu Ser
 1155 1160 1165
 Arg Ala Lys Ser Glu Pro Phe Arg Ile Ser Pro Val Asn Arg Met Tyr
 1170 1175 1180
 Ala Ile Cys Arg Ser Tyr Pro Gly Leu Leu Ile Val Pro Gln Ser Val
 1185 1190 1195 1200
 Gln Asp Asn Ala Leu Gln Arg Val Ser Arg Cys Tyr Arg Gln Asn Arg
 1205 1210 1215
 Phe Pro Val Val Cys Trp Arg Ser Gly Arg Ser Lys Ala Val Leu Leu
 1220 1225 1230
 Arg Ser Gly Gly Leu His Gly Lys Gly Val Val Gly Leu Phe Lys Ala
 1235 1240 1245

Gln	Asn	Ala	Pro	Ser	Pro	Gly	Gln	Ser	Gln	Ala	Asp	Ser	Ser	Ser	Leu
1250							1255				1260				
Glu	Gln	Glu	Lys	Tyr	Leu	Gln	Ala	Val	Val	Ser	Ser	Met	Pro	Arg	Tyr
1265							1270			1275			1280		
Ala	Asp	Ala	Ser	Gly	Arg	Asn	Thr	Leu	Ser	Gly	Phe	Ser	Ser	Ala	His
							1285		1290			1295			
Met	Gly	Ser	His	Val	Pro	Ser	Pro	Arg	Ala	Arg	Val	Thr	Thr	Leu	Ser
							1300		1305			1310			
Asn	Pro	Met	Ala	Ala	Ser	Ala	Ser	Arg	Arg	Thr	Ala	Pro	Arg	Gly	
							1315		1320			1325			

<210> 71
 <211> 1123
 <212> PRT
 <213> Homo sapiens

<400> 71
 Arg Phe Pro Gln Lys Asp Trp Asp Asp Thr Pro Phe Pro Gln Gly Ile
 1 5 10 15

Glu Leu Phe Cys Gln Pro Gly Gly Trp Gln Leu Ser Arg Glu Arg Lys
 20 25 30

Gln Pro Thr Phe Phe Val Val Val Leu Thr Asp Ile Asp Ser Asp Arg
 35 40 45

His Tyr Cys Ser Cys Leu Thr Phe Tyr Glu Ala Glu Ile Asn Leu Gln
 50 55 60

Gly Thr Lys Lys Glu Glu Ile Glu Gly Glu Ala Lys Val Ser Gly Leu
 65 70 75 80

Ile Gln Pro Ala Glu Val Phe Ala Pro Lys Ser Leu Val Leu Val Ser
 85 90 95

Arg Leu Tyr Tyr Pro Glu Ile Phe Arg Ala Cys Leu Gly Leu Ile Tyr
 100 105 110

Thr Val Tyr Val Asp Ser Leu Asn Val Ser Leu Glu Ser Leu Ile Ala
 115 120 125

Asn Leu Cys Ala Cys Leu Val Pro Ala Ala Gly Gly Ser Gln Lys Leu
 130 135 140

Phe Ser Leu Gly Ala Gly Asp Arg Gln Leu Ile Gln Thr Pro Leu His
 145 150 155 160

Asp Ser Leu Pro Ile Thr Gly Thr Ser Val Ala Leu Leu Phe Gln Gln
 165 170 175

Leu Gly Ile Gln Asn Val Leu Ser Leu Phe Cys Ala Val Leu Thr Glu
 180 185 190

Asn Lys Val Leu Phe His Ser Ala Ser Phe Gln Arg Leu Ser Asp Ala
 195 200 205
 Cys Arg Ala Leu Glu Ser Leu Met Phe Pro Leu Lys Tyr Ser Tyr Pro
 210 215 220
 Tyr Ile Pro Ile Leu Pro Ala Gln Leu Leu Glu Val Leu Ser Ser Pro
 225 230 235 240
 Thr Pro Phe Ile Ile Gly Val His Ser Val Phe Lys Thr Asp Val His
 245 250 255
 Glu Leu Leu Asp Val Ile Ala Asp Leu Asp Gly Gly Thr Ile Lys
 260 265 270
 Ile Pro Glu Cys Ile His Leu Ser Ser Leu Pro Glu Pro Leu Leu His
 275 280 285
 Gln Thr Gln Ser Ala Leu Ser Leu Ile Leu His Pro Asp Leu Glu Val
 290 295 300
 Ala Asp His Ala Phe Pro Pro Arg Thr Ala Leu Ser His Ser Lys
 305 310 315 320
 Met Leu Asp Lys Glu Val Arg Ala Val Phe Leu Arg Leu Phe Ala Gln
 325 330 335
 Leu Phe Gln Gly Tyr Arg Ser Cys Leu Gln Leu Ile Arg Ile His Ala
 340 345 350
 Glu Pro Val Ile His Phe His Lys Thr Ala Phe Leu Gly Gln Arg Gly
 355 360 365
 Leu Val Glu Asn Asp Phe Leu Thr Lys Val Leu Ser Gly Met Ala Phe
 370 375 380
 Ala Gly Phe Val Ser Glu Arg Gly Pro Pro Tyr Arg Ser Cys Asp Leu
 385 390 395 400
 Phe Asp Glu Leu Val Ala Phe Glu Val Glu Arg Ile Lys Val Glu Glu
 405 410 415
 Asn Asn Pro Val Lys Met Ile Lys His Val Arg Glu Leu Ala Glu Gln
 420 425 430
 Leu Phe Lys Asn Glu Asn Pro Asn Pro His Met Ala Phe Gln Lys Val
 435 440 445
 Pro Arg Pro Thr Glu Gly Ser His Leu Arg Val His Ile Leu Pro Phe
 450 455 460
 Pro Glu Ile Asn Glu Ala Arg Val Gln Glu Leu Ile Gln Glu Asn Val
 465 470 475 480
 Ala Lys Asn Gln Asn Ala Pro Pro Ala Thr Arg Ile Glu Lys Lys Cys
 485 490 495

Val Val Pro Ala Gly Pro Pro Val Val Ser Ile Met Asp Lys Val Thr
 500 505 510
 Thr Val Phe Asn Ser Ala Gln Arg Leu Glu Val Val Arg Asn Cys Ile
 515 520 525
 Ser Phe Ile Phe Glu Asn Lys Ile Leu Glu Thr Glu Lys Thr Leu Pro
 530 535 540
 Ala Ala Leu Arg Ala Leu Lys Gly Lys Ala Ala Arg Gln Cys Leu Thr
 545 550 555 560
 Asp Glu Leu Gly Leu His Val Gln Gln Asn Arg Ala Ile Leu Asp His
 565 570 575
 Gln Gln Phe Asp Tyr Ile Ile Arg Met Met Asn Cys Thr Leu Gln Asp
 580 585 590
 Cys Ser Ser Leu Glu Glu Tyr Asn Ile Ala Ala Ala Leu Leu Pro Leu
 595 600 605
 Thr Ser Ala Phe Tyr Arg Lys Leu Ala Pro Gly Val Ser Gln Phe Ala
 610 615 620
 Tyr Thr Cys Val Gln Asp His Pro Ile Trp Thr Asn Gln Gln Phe Trp
 625 630 635 640
 Glu Thr Thr Phe Tyr Asn Ala Val Gln Glu Gln Val Arg Ser Leu Tyr
 645 650 655
 Leu Ser Ala Lys Glu Asp Asn His Ala Pro His Leu Lys Gln Lys Asp
 660 665 670
 Lys Leu Pro Asp Asp His Tyr Gln Glu Lys Thr Ala Met Asp Leu Ala
 675 680 685
 Ala Glu Gln Leu Arg Leu Trp Pro Thr Leu Ser Lys Ser Thr Gln Gln
 690 695 700
 Glu Leu Val Gln His Glu Glu Ser Thr Val Phe Ser Gln Ala Ile His
 705 710 715 720
 Phe Ala Asn Leu Met Val Asn Leu Leu Val Pro Leu Asp Thr Ser Lys
 725 730 735
 Asn Lys Leu Leu Arg Thr Ser Ala Pro Gly Asp Trp Glu Ser Gly Ser
 740 745 750
 Asn Ser Ile Val Thr Asn Ser Ile Ala Gly Ser Val Ala Glu Ser Tyr
 755 760 765
 Asp Thr Glu Ser Gly Phe Glu Asp Ser Glu Asn Thr Asp Ile Ala Asn
 770 775 780
 Ser Val Val Arg Phe Ile Thr Arg Phe Ile Asp Lys Val Cys Thr Glu
 785 790 795 800

Ser Gly Val Thr Gln Asp His Ile Lys Ser Leu His Cys Met Ile Pro
 805 810 815
 Gly Ile Val Ala Met His Ile Glu Thr Leu Glu Ala Val His Arg Glu
 820 825 830
 Ser Arg Arg Leu Pro Pro Ile Gln Lys Pro Lys Ile Leu Arg Pro Ala
 835 840 845
 Leu Leu Pro Gly Glu Glu Ile Val Cys Glu Gly Leu Arg Val Leu Leu
 850 855 860
 Asp Pro Asp Gly Arg Glu Glu Ala Thr Gly Gly Leu Leu Gly Gly Pro
 865 870 875 880
 Gln Leu Leu Pro Ala Glu Gly Ala Leu Phe Leu Thr Thr Tyr Arg Ile
 885 890 895
 Leu Phe Arg Gly Thr Pro His Asp Gln Leu Val Gly Glu Gln Thr Val
 900 905 910
 Val Arg Ser Phe Pro Ile Ala Ser Ile Thr Lys Glu Lys Lys Ile Thr
 915 920 925
 Met Gln Asn Gln Leu Gln Gln Asn Met Gln Glu Gly Leu Gln Ile Thr
 930 935 940
 Ser Ala Ser Phe Gln Leu Ile Lys Val Ala Phe Asp Glu Glu Val Ser
 945 950 955 960
 Pro Glu Val Val Glu Ile Phe Lys Lys Gln Leu Met Lys Phe Arg Tyr
 965 970 975
 Pro Gln Ser Ile Phe Ser Thr Phe Ala Phe Ala Ala Gly Gln Thr Thr
 980 985 990
 Pro Gln Ile Ile Leu Pro Lys Gln Lys Glu Lys Asn Thr Ser Phe Arg
 995 1000 1005
 Thr Phe Ser Lys Thr Ile Val Lys Gly Ala Lys Arg Ala Gly Lys Met
 1010 1015 1020
 Thr Ile Gly Arg Gln Tyr Leu Leu Lys Lys Thr Gly Thr Ile Val
 1025 1030 1035 1040
 Glu Glu Arg Val Asn Arg Pro Gly Trp Asn Glu Asp Asp Asp Val Ser
 1045 1050 1055
 Val Ser Asp Glu Ser Glu Leu Pro Thr Ser Thr Leu Lys Ala Ser
 1060 1065 1070
 Glu Lys Ser Thr Met Glu Gln Leu Val Glu Lys Ala Cys Phe Arg Asp
 1075 1080 1085
 Tyr Gln Arg Leu Gly Leu Gly Thr Ile Ser Gly Ser Ser Ser Arg Ser
 1090 1095 1100

Arg Pro Glu Tyr Phe Arg Ile Thr Ala Ser Asn Arg Met Tyr Ser Leu
1105 1110 1115 1120

Cys Arg Arg

<210> 72

<211> 1728

<212> PRT

<213> Drosophila melanogaster

<400> 72

Met Thr Glu Asn Lys Ile Leu Phe Leu Ser Lys Cys Tyr Trp His Leu
1 5 10 15

Thr Asp Ser Cys Arg Ala Leu Val Ala Leu Met Tyr Pro Phe Arg Tyr
20 25 30

Thr His Val Tyr Ile Pro Ile Leu Pro Ala Pro Leu Thr Glu Val Leu
35 40 45

Ser Thr Pro Thr Pro Phe Ile Met Gly Ile His Ser Ser Leu Gln Thr
50 55 60

Glu Ile Thr Asp Leu Leu Asp Val Ile Val Val Asp Leu Asp Gly Gly
65 70 75 80

Leu Val Thr Ile Pro Glu Ser Leu Thr Pro Pro Val Pro Ile Leu Pro
85 90 95

Ser Pro Leu Trp Glu Gln Thr Gln Asp Leu Leu Ser Met Ile Leu Phe
100 105 110

Pro Asn Leu Ala Gln Ala Asp Leu Ala Phe Pro Thr Leu Glu Arg Pro
115 120 125

Ser Ala Ile Ala Lys Thr Asp Ala Gln Ile Asp Lys Glu Leu Arg Ala
130 135 140

Ile Phe Met Arg Leu Phe Ala Gln Leu Leu Gln Gly Tyr Arg Ser Cys
145 150 155 160

Leu Thr Ile Ile Arg Ile His Pro Lys Pro Val Ile Thr Phe His Lys
165 170 175

Ala Gly Phe Leu Gly Ala Arg Asp Leu Ile Glu Ser Glu Phe Leu Phe
180 185 190

Arg Val Leu Asp Ser Met Phe Phe Thr Thr Phe Val Asn Glu Arg Gly
195 200 205

Pro Pro Trp Arg Ser Ser Asp Ala Trp Asp Glu Leu Tyr Ser Ser Met
210 215 220

Asn Glu Leu Leu Lys Ser Glu Ala Gln Asn Arg Asn Leu Ile Leu Thr

225	230	235	240
His Ile Gln Glu Leu Gly Arg Val Leu Tyr Glu Asn Glu Gly Thr Leu			
245	250	255	
Ala His Ile Ser Tyr Ala Gln Lys Val Leu Arg Pro Pro Glu Gly Ala			
260	265	270	
Phe Gln Arg Ile His Gln Pro Ala Phe Pro Arg Ile Ser Ser Glu Lys			
275	280	285	
Val Glu Leu Ile Ile Gln Glu Gly Ile Arg Lys Asn Gly Val Pro Gln			
290	295	300	
Arg Phe His Val Thr Arg Asn Gln His Arg Ile Ile Pro Met Gly Pro			
305	310	315	320
Arg Leu Pro Glu Ala Leu Asp Val Arg Pro Asn Val Gln Asn Ser Ala			
325	330	335	
Arg Arg Leu Glu Val Leu Arg Ile Cys Val Ser Tyr Ile Phe Glu Asn			
340	345	350	
Arg Ile Thr Asp Ala Arg Lys Leu Leu Pro Ala Val Met Arg Thr Leu			
355	360	365	
Met His Arg Asp Ala Arg Leu Ile Leu Cys Arg Glu Phe Phe Gly Tyr			
370	375	380	
Val His Gly Asn Lys Ala Val Leu Asp His Gln Gln Phe Glu Leu Val			
385	390	395	400
Val Arg Phe Met Asn Lys Ala Leu Gln Lys Ser Ser Gly Ile Asp Glu			
405	410	415	
Tyr Thr Val Ala Ala Ala Leu Leu Pro Met Ser Thr Ile Phe Cys Arg			
420	425	430	
Lys Leu Ser Thr Gly Val Val Gln Phe Ala Tyr Thr Glu Ile Gln Asp			
435	440	445	
His Ala Ile Trp Lys Asn Leu Gln Phe Trp Glu Ser Thr Phe Phe Gln			
450	455	460	
Asp Val Gln Gly Gln Ile Lys Ala Leu Tyr Leu Leu His Arg Arg Gln			
465	470	475	480
Asn Glu His Gln Lys Glu Ala Asn Cys Val Leu Asp Glu Val Pro Leu			
485	490	495	
Glu Glu Pro Thr Ala Leu Glu Ile Thr Ala Glu Gln Leu Arg Lys Ser			
500	505	510	
Pro Asn Ile Glu Glu Glu Lys Lys Ala Glu Leu Ala Lys Ser Glu Glu			
515	520	525	
Ser Thr Leu Tyr Ser Gln Ala Ile His Phe Ala Asn Arg Met Val Ser			

530	535	540													
Leu	Leu	Ile	Pro	Leu	Asp	Val	Asn	Val	Asp	Ala	Ala	Ser	Lys	Pro	Lys
545															560
550										555					
Pro	Ala	Phe	Arg	Leu	Glu	Glu	Asn	Gln	Ser	Val	Ser	Asn	Ser	Ile	Met
										570					575
565															
Gly	Ser	His	Ser	Leu	Ser	Glu	His	Ser	Asp	Glu	Gly	Phe	Glu	Glu	Asn
										585					590
580															
Asn	Ala	Leu	Glu	Ile	Gly	Val	Thr	Val	Gly	Thr	Ile	Ser	Arg	Phe	
										600					605
595															
Ile	Asp	Cys	Val	Cys	Thr	Glu	Gly	Gly	Val	Thr	Ser	Glu	His	Ile	Arg
										615					620
610															
Asn	Leu	His	Asp	Met	Val	Pro	Gly	Val	Val	His	Met	His	Ile	Glu	Ser
										630					640
625											635				
Leu	Glu	Pro	Val	Tyr	Leu	Glu	Ala	Lys	Arg	His	Pro	His	Val	Gln	Lys
										645					655
640															
Pro	Lys	Ile	Gln	Thr	Pro	Cys	Leu	Leu	Pro	Gly	Glu	Asp	Leu	Val	Thr
										660					670
660															
Asp	His	Leu	Arg	Cys	Phe	Leu	Met	Pro	Asp	Gly	Arg	Glu	Asp	Glu	Thr
										675					685
675															
Gln	Cys	Leu	Ile	Pro	Ala	Glu	Gly	Ala	Leu	Phe	Leu	Thr	Asn	Tyr	Arg
										690					695
690											695				700
Val	Ile	Phe	Lys	Gly	Ser	Pro	Cys	Asp	Pro	Leu	Phe	Cys	Glu	Gln	Val
										705					720
705											710				
Ile	Val	Arg	Thr	Phe	Pro	Ile	Ala	Ser	Leu	Leu	Lys	Glu	Lys	Ile	
											725				735
725															
Ser	Val	Leu	Tyr	Leu	Ala	His	Leu	Asp	Gln	Thr	Leu	Thr	Glu	Gly	Leu
										740					750
740											745				
Gln	Leu	Arg	Ser	Ser	Ser	Phe	Gln	Leu	Ile	Lys	Val	Ala	Phe	Asp	Pro
										755					765
755											760				
Glu	Val	Thr	Pro	Glu	Gln	Ile	Glu	Ser	Phe	Arg	Lys	Ile	Leu	Ser	Lys
										770					775
770											775				780
Ala	Arg	His	Pro	Phe	Asp	Glu	Phe	Glu	Tyr	Phe	Ala	Phe	Gln	Ser	Tyr
										785					800
785											790				
Gly	Thr	Met	Leu	Gln	Gly	Val	Ala	Pro	Leu	Lys	Thr	Lys	Glu	Lys	Tyr
										805					815
805															
Ser	Thr	Leu	Lys	Gly	Phe	Ala	Lys	Lys	Thr	Leu	Leu	Arg	Gly	Ala	Lys
										820					830
820											825				
Lys	Ala	Gly	Phe	Lys	Gln	Lys	Gln	Gln	Thr	Lys	Arg	Lys	Leu	Val	Ser

835	840	845	
Asp Tyr Asp Tyr Gly Ser Ala Asp Ala Gln Glu Thr Gln Ser Ile Asp			
850	855	860	
Asp Glu Leu Glu Asp Gly Asp Glu Phe Glu Thr Gln Asn Asn Ala Met			
865	870	875	880
Pro Arg Leu Leu Thr Thr Lys Asp Val Glu Arg Met Arg Glu Arg Ser			
885	890	895	
Tyr Val Gln Asp Trp Lys Arg Leu Gly Phe Asp Ala Glu Ser Gln Arg			
900	905	910	
Gly Phe Arg Ile Ser Asn Ala Asn Thr Ser Tyr Ala Thr Cys Arg Ser			
915	920	925	
Tyr Pro Ala Ile Ile Val Ala Pro Val Gln Cys Ser Asp Ala Ala Ile			
930	935	940	
Met His Leu Gly Arg Cys Phe Lys Gly Gln Arg Ile Pro Leu Pro Thr			
945	950	955	960
Trp Arg His Ala Asn Gly Ala Leu Leu Ile Arg Gly Gly Gln Pro Asn			
965	970	975	
Ser Lys Ser Val Ile Gly Met Leu Lys Asn Thr Thr Gly Ser Thr Thr			
980	985	990	
Asn Ala His His Asp Val Thr His Tyr Pro Glu Gln Asp Lys Tyr Phe			
995	1000	1005	
Leu Ala Leu Ile Asn Thr Met Pro Lys Leu Thr Pro Leu Ala Leu Asn			
1010	1015	1020	
Gln Tyr Ser Gly Met Asn Leu Ser Met Ser Ser Leu Met Gly His Ser			
1025	1030	1035	1040
Ser Ser Asp Asp Arg Gln Pro Leu Thr Pro Glu Leu Ser Arg Lys His			
1045	1050	1055	
Lys Asn Asn Leu Asp Ile Ser Asp Gly Asn Lys Ser Ser Gln Gly Gly			
1060	1065	1070	
Lys Gly Gly Thr Met Lys Gly Asn Pro Lys Asn Ser Leu Ala His Pro			
1075	1080	1085	
Phe Arg Lys Met Arg Leu Tyr Ala Leu Gly Glu Lys Ser Gln Ala Lys			
1090	1095	1100	
Ser Asn Met Asn Val Asp Phe Cys Ala Asp Phe Ile Pro Val Asp Tyr			
1105	1110	1115	1120
Pro Asp Ile Arg Gln Ser Arg Pro Ala Phe Lys Lys Leu Ile Arg Ala			
1125	1130	1135	
Cys Met Pro Ser His Asn Thr Asn Glu Ala Asp Gly Gln Ser Phe Ala			

1140	1145	1150
Lys Met Val Glu Gln Ser Asp Trp Leu Gln Gln Ile Ser Ser Leu Met		
1155	1160	1165
Gln Leu Ser Gly Ala Val Val Asp Leu Ile Asp Leu Gln Glu Ser Ser		
1170	1175	1180
Val Met Leu Ser Leu Glu Asp Gly Ser Asp Val Thr Ala Gln Leu Ser		
1185	1190	1195
Ser Ile Ala Gln Leu Cys Leu Asp Pro Tyr Tyr Arg Ser Leu Asp Gly		
1205	1210	1215
Phe Arg Val Leu Val Glu Lys Glu Trp Leu Ala Phe Gly His Arg Phe		
1220	1225	1230
Ala His Arg Ser Asn Leu Lys Pro Ser His Ala Asn Thr Asn Ile Ala		
1235	1240	1245
Phe Ala Pro Thr Phe Leu Gln Phe Leu Asp Val Val His Gln Leu Gln		
1250	1255	1260
Arg Gln Phe Pro Met Ala Phe Glu Phe Asn Asp Phe Tyr Leu Arg Phe		
1265	1270	1275
Leu Ala Tyr His Ser Val Ser Cys Arg Phe Arg Thr Phe Leu Phe Asp		
1285	1290	1295
Cys Glu Leu Glu Arg Ser Asp Ser Gly Ile Ala Ala Met Glu Asp Lys		
1300	1305	1310
Arg Gly Ser Leu Asn Ala Lys His Met Phe Gly Ala Gly Met Ala		
1315	1320	1325
Thr Asn Gly Ser Asp Asp Glu Cys Ser Val Tyr Pro Leu Asp Ile Arg		
1330	1335	1340
Ser Gln Arg Ala Pro Ala Pro Leu Asn Arg Ile Gly His Ser Ile Phe		
1345	1350	1355
Asp Tyr Ile Glu Arg Gln His Asn Lys Thr Pro Ile Phe Tyr Asn Phe		
1365	1370	1375
Leu Tyr Ser Gly Asp Lys Ser Val Thr Leu Arg Pro Gln Asn Asn Val		
1380	1385	1390
Ala Ala Leu Asp Leu Trp Cys Tyr Tyr Thr Asn Glu Glu Leu Ala Gln		
1395	1400	1405
Gly Ala Pro Tyr Asp Leu Glu Val Thr Thr Val Asp Asp Glu Ile Asp		
1410	1415	1420
Leu Ser Glu Thr Lys Gly Lys Arg Met Val Ile Thr Ala Gly Tyr Asp		
1425	1430	1435
Asn Met Glu Lys Cys Asn Pro Ser Ala Tyr Val Cys Leu Leu Ser Glu		

1445	1450	1455
Val Lys Gln Ala Glu Thr Glu Arg Gly His Leu Pro Gln Lys Trp Leu		
1460	1465	1470
Gln Val Trp Asn Ser Leu Glu Val Pro Gln Leu Glu Pro Val Ala Arg		
1475	1480	1485
Asn Thr Ser Leu Gly Asn Ile Phe Val Gln Thr His Gln His Lys Arg		
1490	1495	1500
Ser Thr Leu Glu Ile Ile Met Lys Gly Arg Leu Ala Gly Tyr Gln Asp		
1505	1510	1520
Lys Tyr Phe His Pro His Arg Phe Glu Lys His Pro Tyr Thr Thr Pro		
1525	1530	1535
Thr Asn Cys Asn His Cys Thr Lys Leu Leu Trp Gly Pro Val Gly Tyr		
1540	1545	1550
Arg Cys Met Asp Cys Gly Asn Ser Tyr His Glu Lys Cys Thr Glu His		
1555	1560	1565
Ser Met Lys Asn Cys Thr Lys Tyr Lys Ala Ile Asp Gly Ala Val Gly		
1570	1575	1580
Pro Pro Asn Val Asn Met Ser Gln Gly Asp Thr Ala Ser Ile Ala Ser		
1585	1590	1600
Ser Ala Ala Thr Thr Ala Arg Thr Ser Ser His His Phe Tyr Asn Gln		
1605	1610	1615
Phe Ser Ser Asn Val Ala Glu Asn Arg Thr His Glu Gly His Leu Tyr		
1620	1625	1630
Lys Arg Gly Ala Leu Leu Lys Gly Trp Lys Gln Arg Trp Phe Val Leu		
1635	1640	1645
Asp Ser Ile Lys His Gln Leu Arg Tyr Tyr Asp Thr Ser Glu Asp Thr		
1650	1655	1660
Ala Pro Lys Gly Ile Ile Glu Leu Ala Glu Val Gln Ser Val Thr Ala		
1665	1670	1675
Ala Gln Pro Ala Gln Ile Gly Ala Lys Gly Val Asp Glu Lys Gly Phe		
1685	1690	1695
Phe Asp Leu Lys Thr Ser Lys Arg Ile Tyr Asn Phe Tyr Ala Ile Asn		
1700	1705	1710
Ala Asn Leu Ala Gln Glu Trp Ile Glu Lys Leu Gln Ala Cys Leu Gln		
1715	1720	1725

<210> 73

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DENN Consensus Sequence

<400> 73

Leu Leu Ser Ser Pro Phe Pro Ala Pro Gly Lys Thr Leu Arg Phe Ile
1 5 10 15

Glu Leu Leu Pro Thr Asp Gly Asn Asp Val Leu Glu Leu Ala Arg Pro
20 25 30

Asp Pro Ser Arg Leu Pro Leu Val Asp Ala Ser Phe His Ile Leu Phe
35 40 45

Gln Ala Leu Gly Val Asp Gln Cys Leu Arg Val Leu Ala Ser Leu Leu
50 55 60

Leu Glu His Lys Ile Leu Phe His Ser Arg Lys Leu Ser Thr Leu Ser
65 70 75 80

Ser Cys Cys Glu Ala Val Val Ala Leu Leu Tyr Pro Phe Glu Trp Gln
85 90 95

Cys Pro Tyr Ile Pro Leu Leu Pro Ala Ser Leu Ala Asp Val Leu Leu
100 105 110

Ala Pro Thr Pro Tyr Leu Ile Gly Val Pro Ser Ser Phe Phe Asp Asn
115 120 125

Lys Leu Leu Glu Leu Pro Pro Ser Asp Val Ile Cys Val Asp Leu Asp
130 135 140

Thr Asn

145

<210> 74

<211> 104

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Pleckstrin homology domain Consensus Sequence

<400> 74

Val Ile Lys Glu Gly Trp Leu Leu Lys Lys Ser Ser Gly Gly Lys Lys
1 5 10 15

Ser Trp Lys Lys Arg Tyr Phe Val Leu Phe Asn Gly Val Leu Leu Tyr
20 25 30

Tyr Lys Ser Lys Lys Lys Ser Ser Ser Lys Pro Lys Gly Ser Ile
 35 40 45
 Pro Leu Ser Gly Cys Thr Val Arg Glu Ala Pro Asp Ser Asp Ser Asp
 50 55 60
 Lys Lys Lys Asn Cys Phe Glu Ile Val Thr Pro Asp Arg Lys Thr Leu
 65 70 75 80
 Leu Leu Gln Ala Glu Ser Glu Glu Arg Lys Glu Trp Val Glu Ala
 85 90 95
 Leu Arg Lys Ala Ile Ala Lys Leu
 100

<210> 75
 <211> 100
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Pleckstrin
 homology domain Consensus Sequence

<400> 75
 Ile Val Lys Glu Gly Trp Leu Leu Lys Ser Thr Val Lys Lys Lys
 1 5 10 15
 Arg Trp Lys Lys Arg Tyr Phe Phe Leu Phe Asn Asp Val Leu Ile Tyr
 20 25 30
 Tyr Lys Asp Lys Lys Ser Tyr Glu Pro Lys Gly Ser Ile Pro Leu
 35 40 45
 Ser Gly Cys Ser Val Glu Asp Val Pro Asp Ser Glu Phe Lys Arg Pro
 50 55 60
 Asn Cys Phe Gln Leu Arg Ser Arg Asp Gly Lys Glu Thr Phe Ile Leu
 65 70 75 80
 Gln Ala Glu Ser Glu Glu Arg Gln Asp Trp Ile Lys Ala Ile Gln
 85 90 95
 Ser Ala Ile Arg
 100

<210> 76
 <211> 240
 <212> PRT
 <213> Mus musculus

<400> 76
 Met Gln Cys Phe Lys Phe Ile Lys Val Met Met Phe Leu Phe Asn Leu
 1 5 10 15

Leu Ile Phe Leu Cys Gly Ala Ala Leu Leu Ala Val Gly Ile Trp Val
 20 25 30
 Ser Val Asp Gly Thr Ser Phe Leu Lys Val Phe Gly Ser Leu Ser Ser
 35 40 45
 Ser Ala Met Gln Phe Val Asn Val Gly Tyr Phe Leu Ile Ala Ala Gly
 50 55 60
 Ala Val Leu Phe Ile Leu Gly Phe Leu Gly Cys Tyr Gly Ala His Ser
 65 70 75 80
 Glu Asn Lys Cys Val Leu Met Met Phe Phe Ser Ile Leu Leu Ile Ile
 85 90 95
 Phe Ile Ala Glu Ile Ala Gly Ala Val Val Ala Leu Val Tyr Thr Thr
 100 105 110
 Leu Ala Glu Gln Phe Leu Thr Leu Leu Val Val Pro Ala Ile Glu Lys
 115 120 125
 Asp Tyr Gly Tyr Gln Thr Asp Phe Thr Gln Val Trp Asn Thr Thr Met
 130 135 140
 Glu Glu Leu His Cys Cys Gly Phe Asn Asn Tyr Thr Asp Phe Asn Ala
 145 150 155 160
 Ser Arg Phe Val Lys Glu Asn Lys Val Phe Pro Pro Pro Cys Cys Ala
 165 170 175
 Asn Pro Gly Asn His Thr Val Glu Pro Cys Thr Glu Glu Lys Ala Lys
 180 185 190
 Ser Met Lys Val Gln Gly Cys Phe Lys Glu Ile Leu His Arg Ile Arg
 195 200 205
 Ala Asn Ala Val Thr Val Gly Gly Val Ala Val Gly Val Ala Ala Leu
 210 215 220
 Glu Leu Ala Ala Met Val Val Ser Met Tyr Leu Tyr Cys Asn Leu Lys
 225 230 235 240

<210> 77
 <211> 241
 <212> PRT
 <213> Homo sapiens

<400> 77
 Met Gln Cys Phe Ser Phe Ile Lys Thr Met Met Ile Leu Phe Asn Leu
 1 5 10 15
 Leu Ile Phe Leu Cys Gly Ala Ala Leu Leu Ala Val Gly Ile Trp Val
 20 25 30

<210> 78
<211> 241
<212> PRT
<213> *Homo sapiens*

<400> 78
 Met Gln Cys Phe Ser Phe Ile Lys Thr Met Met Ile Leu Phe Asn Leu
 1 5 10 15
 Leu Ile Phe Leu Cys Gly Ala Ala Leu Leu Ala Val Gly Ile Trp Val
 20 25 30

35

40

45

Ser Ala Met Gln Phe Val Asn Val Gly Tyr Phe Leu Ile Ala Ala Gly
 50 55 60

Val Val Val Phe Ala Leu Gly Phe Leu Gly Cys Tyr Gly Ala Lys Thr
 65 70 75 80

Glu Ser Lys Cys Ala Leu Val Thr Phe Phe Phe Ile Leu Leu Ile
 85 90 95

Phe Ile Ala Glu Val Ala Ala Val Val Ala Leu Val Tyr Thr Thr
 100 105 110

Met Ala Glu His Phe Leu Thr Leu Leu Val Val Pro Ala Ile Lys Lys
 115 120 125

Asp Tyr Gly Ser Gln Glu Asp Phe Thr Gln Val Trp Asn Thr Thr Met
 130 135 140

Lys Gly Leu Lys Cys Cys Gly Phe Thr Asn Tyr Thr Asp Phe Glu Asp
 145 150 155 160

Ser Pro Tyr Phe Lys Glu Asn Ser Ala Phe Pro Pro Phe Cys Cys Asn
 165 170 175

Asp Asn Val Thr Asn Thr Ala Asn Glu Thr Cys Thr Lys Gln Lys Ala
 180 185 190

His Asp Gln Lys Val Glu Gly Cys Phe Asn Gln Leu Leu Tyr Asp Ile
 195 200 205

Arg Thr Asn Ala Val Thr Val Gly Gly Val Ala Ala Gly Ile Gly Gly
 210 215 220

Leu Glu Leu Ala Ala Met Ile Val Ser Met Tyr Leu Tyr Cys Asn Leu
 225 230 235 240

Gln

<210> 79
 <211> 247
 <212> PRT
 <213> Gallus gallus

<400> 79
 Met Glu Gly Asp Cys Leu Ser Cys Met Lys Tyr Leu Met Phe Leu Phe
 1 5 10 15

Asn Phe Phe Ile Phe Leu Gly Gly Ala Cys Leu Leu Gly Val Gly Ile
 20 25 30

Trp Val Ile Val Asp Pro Thr Gly Phe Arg Glu Ile Val Ala Ala Asn
 35 40 45

Pro Leu Leu Phe Thr Gly Ala Tyr Ile Met Leu Ala Met Gly Ala Met
 50 55 60
 Leu Phe Leu Leu Gly Phe Leu Gly Cys Cys Gly Ala Ile Arg Glu Asn
 65 70 75 80
 Lys Cys Leu Leu Leu Phe Phe Met Phe Ile Leu Leu Ile Phe Leu
 85 90 95
 Ala Glu Leu Ser Ala Ala Ile Leu Ala Phe Ile Phe Arg Glu Asn Leu
 100 105 110
 Thr Arg Glu Phe Phe Thr Lys Glu Leu Lys Lys His Tyr Val Arg Asn
 115 120 125
 Asn Asp Thr His Val Phe Ser Ser Thr Trp Asn Ser Val Met Ile Thr
 130 135 140
 Phe Ala Cys Cys Gly Val Asn Gly Pro Glu Asp Phe Glu Ala Val Pro
 145 150 155 160
 Pro Leu Ser His Leu Pro Leu Glu Glu Thr Thr Pro Glu Ala Cys Cys
 165 170 175
 Gln Arg Asn Val Gln Ser Arg Glu Gly Met Phe Val Asn Arg Lys Ala
 180 185 190
 Cys Leu Glu Gly Asp Glu Arg Phe Gln Asn Arg Gln Gly Cys Tyr Thr
 195 200 205
 Val Ile Leu Asn Ser Phe Glu Thr Tyr Val Tyr Leu Ala Gly Ala Leu
 210 215 220
 Ala Ile Gly Val Leu Ala Ile Glu Leu Phe Ala Met Ile Phe Ala Met
 225 230 235 240
 Cys Leu Phe Arg Gly Ile Gln
 245

<210> 80
 <211> 282
 <212> PRT
 <213> *Caenorhabditis elegans*

<400> 80
 Met Gly Ser Cys Val Asn Ala Leu Arg Ile Val Thr Phe Leu Phe Asn
 1 5 10 15
 Phe Ala Phe Trp Leu Ser Gly Val Val Val Phe Gly Leu Gly Ile Trp
 20 25 30
 Leu Leu Phe Asp Pro Ala Ala Ser Asp Phe Phe Ala Leu His Ser Thr
 35 40 45
 His Pro Gly Ala Phe Arg Tyr Val Gly Trp Phe Leu Val Gly Ala Gly
 50 55 60

Ala Ile Ile Ile Leu Val Gly Tyr Phe Gly Cys Ile Gly Ala Trp Lys
 65 70 75 80
 Met Asn Gln Cys Ala Leu Ala Phe Phe Cys Cys Ile Leu Ile Leu Ala
 85 90 95
 Phe Phe Leu Glu Leu Ala Ala Val Thr Leu Phe His Lys Gln Glu
 100 105 110
 His Ile Lys His Tyr Val Glu Ser Ser Met Tyr Asp Thr Ile Arg Asn
 115 120 125
 Arg Tyr Ser Ser Glu Thr Ala Phe Lys Asp Ala Phe Asp Thr Val Gln
 130 135 140
 Glu Lys Phe Glu Cys Cys Gly Val Lys Thr Tyr Thr Asp Trp Leu Ser
 145 150 155 160
 Ala Arg Trp Asp Ala Glu Pro Ser Thr Gln Leu Glu Val Asn Glu Glu
 165 170 175
 Asp Ala Gly Arg Ile Glu His Gly Ile Gly Ala Phe Gly Asn Lys
 180 185 190
 Gly Thr Gly Tyr Gly Arg Val Pro Ser Ser Cys Cys Asn Glu His Gly
 195 200 205
 Lys Leu Ser Tyr Pro Asn Asn Cys Gly Arg Ser Phe Ser Gln Ala Pro
 210 215 220
 Leu Asn Thr Tyr Ala Gln Phe Ile Asn Thr Arg Gly Cys Ala Asp Ala
 225 230 235 240
 Val Tyr Glu Ser Val Ser Ser Leu Ser Leu Ile Val Gly Val Cys
 245 250 255
 Val Val Leu Cys Ile Val Gln Leu Leu Gly Ile Val Leu Ser Met Thr
 260 265 270
 Leu Cys Cys Cys Lys Gly Asn Ser Lys Lys
 275 280

<210> 81
 <211> 222
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Tetraspanin
 Family Consensus Sequence

<400> 81
 Lys Tyr Leu Leu Phe Leu Leu Asn Leu Leu Phe Trp Leu Cys Gly Ile
 1 5 10 15

Leu Leu Leu Ala Val Gly Ile Trp Leu Leu Val Asp Leu Ser Ser Phe
 20 25 30

 Ser Glu Leu Leu Gly Ser Leu Ser Ser Leu Val Ala Ala Tyr Val Leu
 35 40 45

 Ile Ala Val Gly Ala Ile Leu Phe Leu Val Gly Phe Leu Gly Cys Cys
 50 55 60

 Gly Ala Ile Arg Glu Ser Arg Cys Leu Leu Gly Leu Tyr Phe Val Phe
 65 70 75 80

 Leu Leu Leu Ile Phe Ile Leu Glu Val Ala Ala Gly Ile Leu Ala Phe
 85 90 95

 Val Phe Arg Asp Lys Leu Glu Ser Ser Leu Asn Glu Ser Leu Lys Asn
 100 105 110

 Ala Ile Lys Asn Tyr Tyr Asp Thr Asp Pro Asp Glu Arg Asn Ala Trp
 115 120 125

 Asp Lys Leu Gln Glu Gln Phe Lys Cys Cys Gly Val Asn Gly Tyr Thr
 130 135 140

 Asp Trp Phe Asp Ser Gln Trp Phe Ser Asn Gly Val Pro Phe Ser Cys
 145 150 155 160

 Cys Asn Pro Ser Val Ser Cys Asn Ser Ala Gln Asp Glu Glu Asp Thr
 165 170 175

 Ile Tyr Gln Glu Gly Cys Leu Glu Lys Leu Leu Glu Trp Leu Glu Glu
 180 185 190

 Asn Leu Leu Ile Val Gly Val Ala Leu Gly Ile Ala Leu Ile Gln
 195 200 205

 Leu Leu Gly Met Ile Leu Ser Cys Cys Leu Cys Cys Ser Ile
 210 215 220

 <210> 82
 <211> 135
 <212> PRT
 <213> Bos taurus

 <400> 82
 Met Ala Thr Val Gln Gln Leu Val Gly Arg Trp Arg Leu Val Glu Ser
 1 5 10 15

 Lys Gly Phe Asp Glu Tyr Met Lys Glu Val Gly Val Gly Met Ala Leu
 20 25 30

 Arg Lys Val Gly Ala Met Ala Lys Pro Asp Cys Ile Ile Thr Ser Asp
 35 40 45

 Gly Lys Asn Leu Ser Ile Lys Thr Glu Ser Thr Leu Lys Thr Thr Gln
 50 55 60

Phe	Ser	Cys	Lys	Leu	Gly	Glu	Lys	Phe	Glu	Glu	Thr	Thr	Ala	Asp	Gly
65				70				75					80		
Arg	Lys	Thr	Gln	Thr	Val	Cys	Asn	Phe	Thr	Asp	Gly	Ala	Leu	Val	Gln
	85				90				95						
His	Gln	Glu	Trp	Asp	Gly	Lys	Glu	Ser	Thr	Ile	Thr	Arg	Lys	Leu	Glu
	100				105				110						
Asp	Gly	Lys	Leu	Val	Val	Val	Cys	Val	Met	Asn	Asn	Val	Thr	Cys	Thr
	115				120				125						
Arg	Val	Tyr	Glu	Lys	Val	Glu									
	130				135										

<210> 83
 <211> 135
 <212> PRT
 <213> Bos taurus

<400> 83															
Met	Ala	Thr	Val	Gln	Gln	Leu	Val	Gly	Arg	Trp	Arg	Leu	Val	Glu	Ser
1			5				10					15			
Lys	Gly	Phe	Asp	Glu	Tyr	Met	Lys	Glu	Val	Gly	Val	Gly	Met	Ala	Leu
	20				25							30			
Arg	Lys	Val	Gly	Ala	Met	Ala	Lys	Pro	Asp	Cys	Ile	Ile	Thr	Ser	Asp
	35				40						45				
Gly	Lys	Asn	Pro	Ser	Ile	Lys	Thr	Glu	Ser	Thr	Leu	Lys	Thr	Thr	Gln
	50				55					60					
Phe	Ser	Cys	Lys	Leu	Gly	Glu	Lys	Phe	Glu	Glu	Thr	Thr	Ala	Asp	Gly
65				70				75					80		
Arg	Lys	Thr	Gln	Thr	Val	Cys	Asn	Phe	Thr	Asp	Gly	Ala	Leu	Val	Gln
	85				90				95						
His	Gln	Glu	Trp	Asp	Gly	Lys	Glu	Ser	Thr	Ile	Thr	Arg	Lys	Leu	Glu
	100				105				110						
Asp	Gly	Lys	Leu	Val	Val	Val	Cys	Val	Met	Asn	Asn	Val	Thr	Cys	Thr
	115				120				125						
Arg	Val	Tyr	Glu	Lys	Val	Glu									
	130				135										

<210> 84
 <211> 135
 <212> PRT
 <213> Homo sapiens

<400> 84

Met Ala Thr Val Gln Gln Leu Glu Gly Arg Trp Arg Leu Val Asp Ser
 1 5 10 15
 Lys Gly Phe Asp Glu Tyr Met Lys Glu Leu Gly Val Gly Ile Ala Leu
 20 25 30
 Arg Lys Met Gly Ala Met Ala Lys Pro Asp Cys Ile Ile Thr Cys Asp
 35 40 45
 Gly Lys Asn Leu Thr Ile Lys Thr Glu Ser Thr Leu Lys Thr Thr Gln
 50 55 60
 Phe Ser Cys Thr Leu Gly Glu Lys Phe Glu Glu Thr Thr Ala Asp Gly
 65 70 75 80
 Arg Lys Thr Gln Thr Val Cys Asn Phe Thr Asp Gly Ala Leu Val Gln
 85 90 95
 His Gln Glu Trp Asp Gly Lys Glu Ser Thr Ile Thr Arg Lys Leu Lys
 100 105 110
 Asp Gly Lys Leu Val Val Glu Cys Val Met Asn Asn Val Thr Cys Thr
 115 120 125
 Arg Ile Tyr Glu Lys Val Glu
 130 135

<210> 85
 <211> 135
 <212> PRT
 <213> Homo sapiens

<400> 85
 Met Ala Thr Val Gln Gln Leu Glu Gly Arg Trp Arg Leu Val Asp Ser
 1 5 10 15
 Arg Gly Phe Asp Glu Tyr Val Lys Glu Leu Gly Val Gly Ile Ala Leu
 20 25 30
 Arg Lys Met Asp Thr Ile Ala Lys Pro Asp Cys Ile Ile Thr Cys Asp
 35 40 45
 Gly Lys Asn Leu Thr Ile Lys Thr Glu Ser Thr Leu Lys Thr Thr Gln
 50 55 60
 Phe Ser Cys Thr Leu Gly Glu Asn Phe Glu Glu Thr Thr Ala Asp Gly
 65 70 75 80
 Arg Lys Thr Gln Thr Val Cys Asn Phe Thr Asp Gly Ala Leu Val Gln
 85 90 95
 His Gln Glu Trp Asp Gly Lys Glu Asn Thr Ile Arg Arg Lys Leu Lys
 100 105 110
 Asp Gly Lys Leu Val Val Asp Cys Val Met Asn Ser Val Thr Cys Thr
 115 120 125

Arg Ile Tyr Glu Lys Val Glu
130 135

<210> 86
<211> 135
<212> PRT
<213> Rattus norvegicus

<400> 86
Met Ala Ser Leu Lys Asp Leu Glu Gly Lys Trp Arg Leu Val Glu Ser
1 5 10 15

His Gly Phe Glu Asp Tyr Met Lys Glu Leu Gly Val Gly Leu Ala Leu
20 25 30

Arg Lys Met Gly Ala Met Ala Lys Pro Asp Cys Ile Ile Thr Leu Asp
35 40 45

Gly Asn Asn Leu Thr Val Lys Thr Glu Ser Thr Val Lys Thr Thr Val
50 55 60

Phe Ser Cys Thr Leu Gly Glu Lys Phe Asp Glu Thr Thr Ala Asp Gly
65 70 75 80

Arg Lys Thr Glu Thr Val Cys Thr Phe Thr Asp Gly Ala Leu Val Gln
85 90 95

His Gln Lys Trp Glu Gly Lys Glu Ser Thr Ile Thr Arg Lys Leu Asn
100 105 110

Asp Gly Lys Met Val Val Glu Cys Val Met Asn Asn Ala Ile Cys Thr
115 120 125

Arg Val Tyr Glu Lys Val Gln
130 135

<210> 87
<211> 307
<212> PRT
<213> Homo sapiens

<400> 87
Met Gly Gly Leu Thr Ala Ser Asp Val His Pro Thr Leu Gly Val Gln
1 5 10 15

Leu Phe Ser Ala Gly Ile Ala Ala Cys Leu Ala Asp Val Ile Thr Phe
20 25 30

Pro Leu Asp Thr Ala Lys Val Arg Leu Gln Val Gln Gly Glu Cys Pro
35 40 45

Thr Ser Ser Val Ile Arg Tyr Lys Gly Val Leu Gly Thr Ile Thr Ala
50 55 60

Val Val Lys Thr Glu Gly Arg Met Lys Leu Tyr Ser Gly Leu Pro Ala
 65 70 75 80
 Gly Leu Gln Arg Gln Ile Ser Ser Ala Ser Leu Arg Ile Gly Leu Tyr
 85 90 95
 Asp Thr Val Gln Glu Phe Leu Thr Ala Gly Lys Glu Thr Ala Pro Ser
 100 105 110
 Leu Gly Ser Lys Ile Leu Ala Gly Leu Thr Thr Gly Gly Val Ala Val
 115 120 125
 Phe Ile Gly Gln Pro Thr Glu Val Val Lys Val Arg Leu Gln Ala Gln
 130 135 140
 Ser His Leu His Gly Ile Lys Pro Arg Tyr Thr Gly Thr Tyr Asn Ala
 145 150 155 160
 Tyr Arg Ile Ile Ala Thr Thr Glu Gly Leu Thr Gly Leu Trp Lys Gly
 165 170 175
 Thr Thr Pro Asn Leu Met Arg Ser Val Ile Ile Asn Cys Thr Glu Leu
 180 185 190
 Val Thr Tyr Asp Leu Met Lys Glu Ala Phe Val Lys Asn Asn Ile Leu
 195 200 205
 Ala Asp Asp Val Pro Cys His Leu Val Ser Ala Leu Ile Ala Gly Phe
 210 215 220
 Cys Ala Thr Ala Met Ser Ser Pro Val Asp Val Val Lys Thr Arg Phe
 225 230 235 240
 Ile Asn Ser Pro Pro Gly Gln Tyr Lys Ser Val Pro Asn Cys Ala Met
 245 250 255
 Lys Val Phe Thr Asn Glu Gly Pro Thr Ala Phe Phe Lys Gly Leu Val
 260 265 270
 Pro Ser Phe Leu Arg Leu Gly Ser Trp Asn Val Ile Met Phe Val Cys
 275 280 285
 Phe Glu Gln Leu Lys Arg Glu Leu Ser Lys Ser Arg Gln Thr Met Asp
 290 295 300
 Cys Ala Thr
 305

<210> 88
 <211> 307
 <212> PRT
 <213> Homo sapiens

<400> 88
 Met Gly Gly Leu Thr Ala Ser Asp Val His Pro Thr Leu Gly Val Gln
 1 5 10 15

Leu Phe Ser Ala Pro Ile Ala Ala Cys Leu Ala Asp Val Ile Thr Phe
 20 25 30
 Pro Leu Asp Thr Ala Lys Val Arg Leu Gln Val Gln Gly Glu Cys Pro
 35 40 45
 Thr Ser Ser Val Ile Arg Tyr Lys Gly Val Leu Gly Thr Ile Thr Ala
 50 55 60
 Val Val Lys Thr Glu Gly Arg Met Lys Leu Tyr Ser Gly Leu Pro Ala
 65 70 75 80
 Gly Leu Gln Arg Gln Ile Ser Ser Ala Ser Leu Arg Ile Gly Leu Tyr
 85 90 95
 Asp Thr Val Gln Glu Phe Leu Thr Ala Gly Lys Glu Thr Ala Pro Ser
 100 105 110
 Leu Gly Ser Lys Ile Leu Ala Gly Leu Thr Thr Gly Gly Val Ala Val
 115 120 125
 Phe Ile Gly Gln Pro Thr Glu Val Val Lys Val Arg Leu Gln Ala Gln
 130 135 140
 Ser His Leu His Gly Ile Lys Pro Arg Tyr Thr Gly Thr Tyr Asn Ala
 145 150 155 160
 Tyr Arg Ile Ile Ala Thr Thr Glu Gly Leu Thr Gly Leu Trp Lys Gly
 165 170 175
 Thr Thr Pro Asn Leu Met Arg Ser Val Ile Ile Asn Cys Thr Glu Leu
 180 185 190
 Val Thr Tyr Asp Leu Met Lys Glu Ala Phe Val Lys Asn Asn Ile Leu
 195 200 205
 Ala Asp Asp Val Pro Cys His Leu Val Ser Ala Leu Ile Ala Gly Phe
 210 215 220
 Cys Ala Thr Ala Met Ser Ser Pro Val Asp Val Val Lys Thr Arg Phe
 225 230 235 240
 Ile Asn Ser Pro Pro Gly Gln Tyr Lys Ser Val Pro Asn Cys Ala Met
 245 250 255
 Lys Val Phe Thr Asn Glu Gly Pro Thr Ala Phe Phe Lys Gly Leu Val
 260 265 270
 Pro Ser Phe Leu Arg Leu Gly Ser Trp Asn Val Ile Met Phe Val Cys
 275 280 285
 Phe Glu Gln Leu Lys Arg Glu Leu Ser Lys Ser Arg Gln Thr Met Asp
 290 295 300
 Cys Ala Thr
 305

<210> 89
<211> 306
<212> PRT
<213> Oryctolagus cuniculus

<400> 89
Met Val Gly Thr Thr Thr Asp Val Pro Pro Thr Met Gly Val Lys
1 5 10 15
Ile Phe Ser Ala Gly Val Ala Ala Cys Leu Ala Asp Val Ile Thr Phe
20 25 30
Pro Leu Asp Thr Ala Lys Val Arg Gln Gln Ile Gln Gly Glu Phe Pro
35 40 45
Ile Thr Ser Gly Ile Arg Tyr Lys Gly Val Leu Gly Thr Ile Thr Thr
50 55 60
Leu Ala Lys Thr Glu Gly Pro Leu Lys Leu Tyr Ser Gly Leu Pro Ala
65 70 75 80
Gly Leu Gln Arg Gln Ile Ser Phe Ala Ser Leu Arg Ile Gly Leu Tyr
85 90 95
Asp Thr Val Gln Glu Phe Phe Thr Ser Gly Glu Glu Thr Pro Ser Leu
100 105 110
Gly Ser Lys Ile Ser Ala Gly Leu Thr Thr Gly Val Ala Val Phe
115 120 125
Ile Gly Gln Pro Thr Glu Val Val Lys Val Arg Leu Gln Ala Gln Ser
130 135 140
His Leu His Gly Leu Lys Pro Arg Tyr Thr Gly Thr Tyr Asn Ala Tyr
145 150 155 160
Arg Ile Ile Ala Thr Thr Glu Ser Leu Thr Ser Leu Trp Lys Gly Thr
165 170 175
Thr Pro Asn Leu Leu Arg Asn Val Ile Ile Asn Cys Thr Glu Leu Val
180 185 190
Thr Tyr Asp Leu Met Lys Gly Ala Leu Val Arg Asn Glu Ile Leu Ala
195 200 205
Asp Asp Val Pro Cys His Phe Val Ser Ala Leu Ile Ala Gly Phe Cys
210 215 220
Thr Thr Leu Leu Ser Ser Pro Val Asp Val Val Lys Thr Arg Phe Ile
225 230 235 240
Asn Ser Pro Pro Gly Gln Tyr Ala Ser Val Pro Asn Cys Ala Met Thr
245 250 255
Met Phe Thr Lys Glu Gly Pro Thr Ala Phe Phe Lys Gly Phe Val Pro

260	265	270
Ser Phe Leu Arg Leu Gly Ser Trp Asn Val Ile Met Phe Val Cys Phe		
275	280	285
Glu Lys Leu Lys Gly Glu Leu Met Arg Ser Arg Gln Thr Val Asp Cys		
290	295	300
Ala Thr		
305		
<210> 90		
<211> 306		
<212> PRT		
<213> Oryctolagus cuniculus		
<400> 90		
Met Val Gly Thr Thr Thr Asp Val Pro Pro Thr Met Gly Val Lys		
1	5	10
Ile Phe Ser Ala Gly Val Ala Ala Cys Leu Ala Asp Val Ile Thr Phe		
20	25	30
Pro Leu Asp Thr Ala Lys Val Arg Gln Gln Ile Gln Gly Glu Phe Pro		
35	40	45
Ile Thr Ser Gly Ile Arg Tyr Lys Gly Val Leu Gly Thr Ile Thr Thr		
50	55	60
Leu Ala Lys Thr Glu Gly Pro Leu Lys Leu Tyr Ser Gly Leu Pro Ala		
65	70	75
Gly Leu Gln Arg Gln Ile Ser Phe Ala Ser Leu Arg Ile Gly Leu Tyr		
85	90	95
Asp Thr Val Gln Glu Phe Phe Thr Ser Gly Glu Glu Thr Pro Ser Leu		
100	105	110
Gly Ser Lys Ile Ser Ala Gly Leu Thr Thr Gly Gly Val Ala Val Phe		
115	120	125
Ile Gly Gln Pro Thr Glu Val Val Lys Val Arg Leu Gln Ala Gln Ser		
130	135	140
His Leu His Gly Leu Lys Pro Arg Tyr Thr Gly Thr Tyr Asn Ala Tyr		
145	150	155
Arg Ile Ile Ala Thr Thr Glu Ser Leu Thr Ser Leu Trp Lys Gly Thr		
165	170	175
Thr Pro Asn Leu Leu Arg Asn Val Ile Ile Asn Cys Thr Glu Leu Val		
180	185	190
Thr Tyr Asp Leu Met Lys Gly Ala Leu Val Arg Asn Glu Ile Leu Ala		
195	200	205

Asp Asp Val Pro Cys His Leu Leu Ser Ala Leu Ile Ala Gly Phe Cys
 210 215 220
 Thr Thr Leu Leu Ser Ser Pro Val Asp Val Val Lys Thr Arg Phe Ile
 225 230 235 240
 Asn Ser Pro Pro Gly Gln Tyr Ala Ser Val Pro Asn Cys Ala Met Thr
 245 250 255
 Met Phe Thr Lys Glu Gly Pro Thr Ala Phe Phe Lys Gly Phe Val Pro
 260 265 270
 Ser Phe Leu Arg Leu Gly Ser Trp Asp Val Ile Met Phe Val Cys Phe
 275 280 285
 Glu Lys Leu Lys Gly Glu Leu Met Arg Ser Arg Gln Thr Val Asp Cys
 290 295 300

Ala Thr
 305

<210> 91
 <211> 307
 <212> PRT
 <213> Mesocricetus auratus

<400> 91
 Met Val Asn Pro Thr Thr Ser Glu Val His Pro Thr Met Gly Val Lys
 1 5 10 15
 Ile Phe Ser Ala Gly Val Ala Ala Cys Leu Ala Asp Ile Ile Thr Phe
 20 25 30
 Pro Leu Asp Thr Ala Lys Val Arg Leu Gln Ile Gln Gly Glu Gly Gln
 35 40 45
 Ile Ser Ser Thr Ile Arg Tyr Lys Gly Val Leu Gly Thr Ile Thr Thr
 50 55 60
 Leu Ala Lys Thr Glu Gly Leu Pro Lys Leu Tyr Ser Gly Leu Pro Ala
 65 70 75 80
 Gly Ile Gln Arg Gln Ile Ser Phe Ala Ser Leu Arg Ile Gly Leu Tyr
 85 90 95
 Asp Thr Val Gln Glu Tyr Phe Ser Ser Gly Lys Glu Thr Pro Pro Thr
 100 105 110
 Leu Gly Asn Arg Ile Ser Ala Gly Leu Met Thr Gly Gly Val Ala Val
 115 120 125
 Phe Ile Gly Gln Pro Thr Glu Val Val Lys Val Arg Leu Gln Ala Gln
 130 135 140
 Ser His Leu His Gly Ile Lys Pro Arg Tyr Thr Gly Thr Tyr Asn Ala
 145 150 155 160

Tyr Arg Ile Ile Ala Thr Thr Glu Ser Phe Ser Thr Leu Trp Lys Gly
 165 170 175
 Thr Thr Pro Asn Leu Leu Arg Asn Val Ile Ile Asn Cys Val Glu Leu
 180 185 190
 Val Thr Tyr Asp Leu Met Lys Gly Ala Leu Val Asn Asn Gln Ile Leu
 195 200 205
 Ala Asp Asp Val Pro Cys His Leu Leu Ser Ala Phe Val Ala Gly Phe
 210 215 220
 Cys Thr Thr Phe Leu Ala Ser Pro Ala Asp Val Val Lys Thr Arg Phe
 225 230 235 240
 Ile Asn Ser Leu Pro Gly Gln Tyr Pro Ser Val Pro Ser Cys Ala Met
 245 250 255
 Thr Met Leu Thr Lys Glu Gly Pro Thr Ala Phe Phe Lys Gly Phe Val
 260 265 270
 Pro Ser Phe Leu Arg Leu Ala Ser Trp Asn Val Ile Met Phe Val Cys
 275 280 285
 Phe Glu Gln Leu Lys Lys Glu Leu Ser Lys Ser Arg Gln Thr Val Asp
 290 295 300
 Cys Thr Thr
 305

<210> 92
 <211> 96
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Mitochondrial
 carrier protein Consensus Sequence

<400> 92
 Ser Pro Leu Ser Phe Leu Ala Ser Leu Leu Ala Gly Gly Ile Ala Gly
 1 5 10 15
 Ala Ile Ala Ala Leu Val Thr Tyr Pro Leu Asp Val Val Lys Thr Arg
 20 25 30
 Leu Gln Val Gln Gly Ser Ser Ser Lys Tyr Lys Gly Ile Leu Asp Cys
 35 40 45
 Phe Lys Lys Ile Val Lys Glu Glu Gly Arg Ala Gly Leu Tyr Lys Gly
 50 55 60
 Leu Gly Pro Thr Leu Leu Arg Val Ala Pro Tyr Ala Ala Ile Tyr Phe
 65 70 75 80

Gly Thr Tyr Glu Gln Leu Lys Lys Leu Gly Lys Lys Leu Gly Glu
85 90 95

<210> 93
<211> 96
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Mitochondrial
carrier protein Consensus Sequence

<400> 93
Ser Pro Leu Ser Phe Leu Ala Ser Leu Leu Ala Gly Gly Ile Ala Gly
1 5 10 15
Ala Ile Ala Ala Leu Val Thr Tyr Pro Leu Asp Val Val Lys Thr Arg
20 25 30
Leu Gln Val Gln Gly Ser Ser Ser Lys Tyr Lys Gly Ile Leu Asp Cys
35 40 45
Phe Lys Lys Ile Val Lys Glu Glu Gly Arg Ala Gly Leu Tyr Lys Gly
50 55 60
Leu Gly Pro Thr Leu Leu Arg Val Ala Pro Tyr Ala Ala Ile Tyr Phe
65 70 75 80
Gly Thr Tyr Glu Gln Leu Lys Lys Leu Leu Gly Lys Lys Leu Gly Glu
85 90 95

<210> 94
<211> 557
<212> PRT
<213> Mus musculus

<400> 94
Met Glu Ser Glu Ser Ser Arg Arg Met Gly Asn Ala Cys Ile Pro Leu
1 5 10 15
Lys Arg Ile Ala Tyr Phe Leu Cys Leu Phe Ser Val Val Leu Leu Thr
20 25 30
Glu Gly Lys Lys Pro Ala Lys Pro Lys Cys Pro Ala Val Cys Thr Cys
35 40 45
Ser Lys Asp Asn Ala Leu Cys Glu Asn Ala Arg Ser Ile Pro Arg Thr
50 55 60

Val	Pro	Pro	Asp	Val	Ile	Ser	Leu	Ser	Phe	Val	Arg	Ser	Gly	Phe	Thr
65															80
Glu Ile Ser Glu Gly Ser Phe Leu Phe Thr Pro Ser Leu Gln Leu Leu															
85															95
Leu Phe Thr Ser Asn Ser Phe Asp Val Ile Ser Asp Asp Ala Phe Ile															
100															110
Gly Leu Pro His Leu Glu Tyr Leu Phe Ile Glu Asn Asn Asn Ile Lys															
115															125
Ser Ile Ser Arg His Thr Phe Arg Gly Leu Lys Ser Leu Ile His Leu															
130															140
Ser Leu Ala Asn Asn Asn Leu Gln Thr Leu Pro Lys Asp Ile Phe Lys															
145															160
Gly Leu Asp Ser Leu Thr Asn Val Asp Leu Arg Gly Asn Ala Phe Asn															
165															175
Cys Asp Cys Lys Leu Lys Trp Leu Val Glu Trp Leu Gly His Thr Asn															
180															190
Ala Thr Val Glu Asp Ile Tyr Cys Glu Gly Pro Pro Glu Tyr Lys Lys															
195															205
Arg Lys Ile Asn Ser Leu Ser Pro Lys Asp Phe Asp Cys Ile Ile Thr															
210															220
Glu Phe Ala Lys Ser Gln Asp Leu Pro Tyr Gln Ser Leu Ser Ile Asp															
225															240
Thr Phe Ser Tyr Leu Asn Asp Glu Tyr Val Val Ile Ala Gln Pro Phe															
245															255
Thr Gly Lys Cys Ile Phe Leu Glu Trp Asp His Val Glu Lys Thr Phe															
260															270
Arg Asn Tyr Asp Asn Ile Thr Gly Thr Ser Thr Val Val Cys Lys Pro															
275															285
Ile Val Ile Asp Thr Gln Leu Tyr Val Ile Val Ala Gln Leu Phe Gly															
290															300
Gly Ser His Ile Tyr Lys Arg Asp Gly Phe Ala Asn Lys Phe Ile Lys															
305															320
Ile Gln Asp Ile Glu Val Leu Lys Ile Arg Lys Pro Asn Asp Ile Glu															
325															335
Thr Phe Lys Ile Glu Asp Asn Trp Tyr Phe Val Val Ala Asp Ser Ser															
340															350
Lys Ala Gly Phe Thr Thr Ile Tyr Lys Trp Asn Gly Asn Gly Phe Tyr															
355															365

Ser His Gln Ser Leu His Ala Trp Tyr Arg Asp Thr Asp Val Glu Tyr
 370 375 380
 Leu Glu Ile Ala Arg Pro Pro Leu Ala Leu Arg Thr Pro His Leu Ile
 385 390 395 400
 Leu Ser Ser Ser Gln Arg Pro Val Ile Tyr Gln Trp Ser Lys Ala
 405 410 415
 Thr Gln Leu Phe Thr Asn Gln Thr Asp Ile Pro Asn Met Glu Asp Val
 420 425 430
 Tyr Ala Val Lys His Phe Ser Val Lys Gly Asp Val Tyr Ile Cys Leu
 435 440 445
 Thr Arg Phe Ile Gly Asp Ser Lys Val Met Lys Trp Gly Gly Ser Ser
 450 455 460
 Phe Gln Asp Ile Gln Arg Met Pro Ser Arg Gly Ser Met Val Phe Gln
 465 470 475 480
 Pro Leu Gln Ile Asn Asn Tyr Gln Tyr Ala Ile Leu Gly Ser Asp Tyr
 485 490 495
 Ser Phe Thr Gln Val Tyr Asn Trp Asp Ala Glu Lys Ala Lys Phe Val
 500 505 510
 Lys Phe Gln Glu Leu Asn Val Gln Ala Pro Arg Ser Phe Thr His Val
 515 520 525
 Ser Ile Asn Lys Arg Asn Phe Leu Phe Ala Ser Ser Phe Lys Gly Asn
 530 535 540
 Thr Gln Ile Tyr Lys His Val Ile Val Asp Leu Ser Ala
 545 550 555

<210> 95
 <211> 557
 <212> PRT
 <213> Homo sapiens

<400> 95
 Met Glu Ser Glu Arg Ser Lys Arg Met Gly Asn Ala Cys Ile Pro Leu
 1 5 10 15
 Lys Arg Ile Ala Tyr Phe Leu Cys Leu Leu Ser Ala Leu Leu Thr
 20 25 30
 Glu Gly Lys Lys Pro Ala Lys Pro Lys Cys Pro Ala Val Cys Thr Cys
 35 40 45
 Thr Lys Asp Asn Ala Leu Cys Glu Asn Ala Arg Ser Ile Pro Arg Thr
 50 55 60
 Val Pro Pro Asp Val Ile Ser Leu Ser Phe Val Arg Ser Gly Phe Thr
 65 70 75 80

Glu	Ile	Ser	Glu	Ser	Phe	Leu	Phe	Thr	Pro	Ser	Leu	Gln	Leu	Leu	
														95	
					85										
Leu	Phe	Thr	Ser	Asn	Ser	Phe	Asp	Val	Ile	Ser	Asp	Asp	Ala	Phe	Ile
														110	100
Gly	Leu	Pro	His	Leu	Glu	Tyr	Leu	Phe	Ile	Glu	Asn	Asn	Ile	Lys	
														125	115
Ser	Ile	Ser	Arg	His	Thr	Phe	Arg	Gly	Leu	Lys	Ser	Leu	Ile	His	Leu
														140	130
Ser	Leu	Ala	Asn	Asn	Asn	Leu	Gln	Thr	Leu	Pro	Lys	Asp	Ile	Phe	Lys
														160	145
Gly	Leu	Asp	Ser	Leu	Thr	Asn	Val	Asp	Leu	Arg	Gly	Asn	Ser	Phe	Asn
														175	165
Cys	Asp	Cys	Lys	Leu	Lys	Trp	Leu	Val	Glu	Trp	Leu	Gly	His	Thr	Asn
														190	180
Ala	Thr	Val	Glu	Asp	Ile	Tyr	Cys	Glu	Gly	Pro	Pro	Glu	Tyr	Lys	Lys
														205	195
Arg	Lys	Ile	Asn	Ser	Leu	Ser	Ser	Lys	Asp	Phe	Asp	Cys	Ile	Ile	Thr
														220	210
Glu	Phe	Ala	Lys	Ser	Gln	Asp	Leu	Pro	Tyr	Gln	Ser	Leu	Ser	Ile	Asp
														240	225
Thr	Phe	Ser	Tyr	Leu	Asn	Asp	Glu	Tyr	Val	Val	Ile	Ala	Gln	Pro	Phe
														255	245
Thr	Gly	Lys	Cys	Ile	Phe	Leu	Glu	Trp	Asp	His	Val	Glu	Lys	Thr	Phe
														270	260
Arg	Asn	Tyr	Asp	Asn	Ile	Thr	Gly	Thr	Ser	Thr	Val	Val	Cys	Lys	Pro
														285	275
Ile	Val	Ile	Glu	Thr	Gln	Leu	Tyr	Val	Ile	Val	Ala	Gln	Leu	Phe	Gly
														300	290
Gly	Ser	His	Ile	Tyr	Lys	Arg	Asp	Ser	Phe	Ala	Asn	Lys	Phe	Ile	Lys
														320	305
Ile	Gln	Asp	Ile	Glu	Ile	Leu	Lys	Ile	Arg	Lys	Pro	Asn	Asp	Ile	Glu
														335	325
Thr	Phe	Lys	Ile	Glu	Asn	Asn	Trp	Tyr	Phe	Val	Val	Ala	Asp	Ser	Ser
														350	340
Lys	Ala	Gly	Phe	Thr	Thr	Ile	Tyr	Lys	Trp	Asn	Gly	Asn	Gly	Phe	Tyr
														365	355
Ser	His	Gln	Ser	Leu	His	Ala	Trp	Tyr	Arg	Asp	Thr	Asp	Val	Glu	Tyr
														380	375

Leu Glu Ile Val Arg Thr Pro Gln Thr Leu Arg Thr Pro His Leu Ile
385 390 395 400

Leu Ser Ser Ser Ser Gln Arg Pro Val Ile Tyr Gln Trp Asn Lys Ala
405 410 415

Thr Gln Leu Phe Thr Asn Gln Thr Asp Ile Pro Asn Met Glu Asp Val
420 425 430

Tyr Ala Val Lys His Phe Ser Val Lys Gly Asp Val Tyr Ile Cys Leu
435 440 445

Thr Arg Phe Ile Gly Asp Ser Lys Val Met Lys Trp Gly Gly Ser Ser
450 455 460

Phe Gln Asp Ile Gln Arg Met Pro Ser Arg Gly Ser Met Val Phe Gln
465 470 475 480

Pro Leu Gln Ile Asn Asn Tyr Gln Tyr Ala Ile Leu Gly Ser Asp Tyr
485 490 495

Ser Phe Thr Gln Val Tyr Asn Trp Asp Ala Glu Lys Ala Lys Phe Val
500 505 510

Lys Phe Gln Glu Leu Asn Val Gln Ala Pro Arg Ser Phe Thr His Val
515 520 525

Ser Ile Asn Lys Arg Asn Phe Leu Phe Ala Ser Ser Phe Lys Gly Asn
530 535 540

Thr Gln Ile Tyr Lys His Val Ile Val Asp Leu Ser Ala
545 550 555

<210> 96
<211> 461
<212> PRT
<213> Homo sapiens

<400> 96
Leu Phe Thr Ser Asn Ser Phe Asp Val Ile Ser Asp Asp Ala Phe Ile
1 5 10 15

Gly Leu Pro His Leu Glu Tyr Leu Phe Ile Glu Asn Asn Asn Ile Lys
20 25 30

Ser Ile Ser Arg His Thr Phe Arg Gly Leu Lys Ser Leu Ile His Leu
35 40 45

Ser Leu Ala Asn Asn Leu Gln Thr Leu Pro Lys Asp Ile Phe Lys
50 55 60

Gly Leu Asp Ser Leu Thr Asn Val Asp Leu Arg Gly Asn Ser Phe Asn
65 70 75 80

Cys Asp Cys Lys Leu Lys Trp Leu Val Glu Trp Leu Gly His Thr Asn

85

90

95

Ala Thr Val Glu Asp Ile Tyr Cys Glu Gly Pro Pro Glu Tyr Lys Lys
 100 105 110

Arg Lys Ile Asn Ser Leu Ser Ser Lys Asp Phe Asp Cys Ile Ile Thr
 115 120 125

Glu Phe Ala Lys Ser Gln Asp Leu Pro Tyr Gln Ser Leu Ser Ile Asp
 130 135 140

Thr Phe Ser Tyr Leu Asn Asp Glu Tyr Val Val Ile Ala Gln Pro Phe
 145 150 155 160

Thr Gly Lys Cys Ile Phe Leu Glu Trp Asp His Val Glu Lys Thr Phe
 165 170 175

Arg Asn Tyr Asp Asn Ile Thr Gly Thr Ser Thr Val Val Cys Lys Pro
 180 185 190

Ile Val Ile Glu Thr Gln Leu Tyr Val Ile Val Ala Gln Leu Phe Gly
 195 200 205

Gly Ser His Ile Tyr Lys Arg Asp Ser Phe Ala Asn Lys Phe Ile Lys
 210 215 220

Ile Gln Asp Ile Glu Ile Leu Lys Ile Arg Lys Pro Asn Asp Ile Glu
 225 230 235 240

Thr Phe Lys Ile Glu Asn Asn Trp Tyr Phe Val Val Ala Asp Ser Ser
 245 250 255

Lys Ala Gly Phe Thr Thr Ile Tyr Lys Trp Asn Gly Asn Gly Phe Tyr
 260 265 270

Ser His Gln Ser Leu His Ala Trp Tyr Arg Asp Thr Asp Val Glu Tyr
 275 280 285

Leu Glu Ile Val Arg Thr Pro Gln Thr Leu Arg Thr Pro His Leu Ile
 290 295 300

Leu Ser Ser Ser Gln Arg Pro Val Ile Tyr Gln Trp Asn Lys Ala
 305 310 315 320

Thr Gln Leu Phe Thr Asn Gln Thr Asp Ile Pro Asn Met Glu Asp Val
 325 330 335

Tyr Ala Val Lys His Phe Ser Val Lys Gly Asp Val Tyr Ile Cys Leu
 340 345 350

Thr Arg Phe Ile Gly Asp Ser Lys Val Met Lys Trp Gly Gly Ser Ser
 355 360 365

Phe Gln Asp Ile Gln Arg Met Pro Ser Arg Gly Ser Met Val Phe Gln
 370 375 380

Pro Leu Gln Ile Asn Asn Tyr Gln Tyr Ala Ile Leu Gly Ser Asp Tyr

385	390	395	400
Ser Phe Thr Gln Val Tyr Asn Trp Asp Ala Glu Lys Ala Lys Phe Val			
405	410	415	
Lys Phe Gln Glu Leu Asn Val Gln Ala Pro Arg Ser Phe Thr His Val			
420	425	430	
Ser Ile Asn Lys Arg Asn Phe Leu Phe Ala Ser Ser Phe Lys Gly Asn			
435	440	445	
Thr Gln Ile Tyr Lys His Val Ile Val Asp Leu Ser Ala			
450	455	460	
<210> 97			
<211> 542			
<212> PRT			
<213> Homo sapiens			
<400> 97			
Arg Arg Gly Gly Cys Gly Ala Leu Gly Leu Leu Leu Leu Leu Gly			
1	5	10	15
Ala Ala Cys Leu Ile Pro Arg Ser Ala Gln Val Arg Arg Leu Ala Arg			
20	25	30	
Cys Pro Ala Thr Cys Ser Cys Thr Lys Glu Ser Ile Ile Cys Val Gly			
35	40	45	
Ser Ser Trp Val Pro Arg Ile Val Pro Gly Asp Ile Ser Ser Leu Ser			
50	55	60	
Leu Val Asn Gly Thr Phe Ser Glu Ile Lys Asp Arg Met Phe Ser His			
65	70	75	80
Leu Pro Ser Leu Gln Leu Leu Leu Leu Asn Ser Asn Ser Phe Thr Ile			
85	90	95	
Ile Arg Asp Asp Ala Phe Ala Gly Leu Phe His Leu Glu Tyr Leu Phe			
100	105	110	
Ile Glu Gly Asn Lys Ile Glu Thr Ile Ser Arg Asn Ala Phe Arg Gly			
115	120	125	
Leu Arg Asp Leu Thr His Leu Ser Leu Ala Asn Asn His Ile Lys Ala			
130	135	140	
Leu Pro Arg Asp Val Phe Ser Asp Leu Asp Ser Leu Ile Glu Leu Asp			
145	150	155	160
Leu Arg Gly Asn Lys Phe Glu Cys Asp Cys Lys Ala Lys Trp Leu Tyr			
165	170	175	
Leu Trp Leu Lys Met Thr Asn Ser Thr Val Ser Asp Val Leu Cys Ile			
180	185	190	

Gly Pro Pro Glu Tyr Gln Glu Lys Lys Leu Asn Asp Val Thr Ser Phe
 195 200 205
 Asp Tyr Glu Cys Thr Thr Asp Phe Val Val His Gln Thr Leu Pro
 210 215 220
 Tyr Gln Ser Val Ser Val Asp Thr Phe Asn Ser Lys Asn Asp Val Tyr
 225 230 235 240
 Val Ala Ile Ala Gln Pro Ser Met Glu Asn Cys Met Val Leu Glu Trp
 245 250 255
 Asp His Ile Glu Met Asn Phe Arg Ser Tyr Asp Asn Ile Thr Gly Gln
 260 265 270
 Ser Ile Val Gly Cys Lys Ala Ile Leu Ile Asp Asp Gln Val Phe Val
 275 280 285
 Val Val Ala Gln Leu Phe Gly Gly Ser His Ile Tyr Lys Tyr Asp Glu
 290 295 300
 Ser Trp Thr Lys Phe Val Lys Phe Gln Asp Ile Glu Val Ser Arg Ile
 305 310 315 320
 Ser Lys Pro Asn Asp Ile Glu Leu Phe Gln Ile Asp Asp Glu Thr Phe
 325 330 335
 Phe Val Ile Ala Asp Ser Ser Lys Ala Gly Leu Ser Thr Val Tyr Lys
 340 345 350
 Trp Asn Ser Lys Gly Phe Tyr Ser Tyr Gln Ser Leu His Glu Trp Phe
 355 360 365
 Arg Asp Thr Asp Ala Glu Phe Val Asp Ile Asp Gly Lys Ser His Leu
 370 375 380
 Ile Leu Ser Ser Arg Ser Gln Val Pro Ile Ile Leu Gln Trp Asn Lys
 385 390 395 400
 Ser Ser Lys Lys Phe Val Pro His Gly Asp Ile Pro Asn Met Glu Asp
 405 410 415
 Val Leu Ala Val Lys Ser Phe Arg Met Gln Asn Thr Leu Tyr Leu Ser
 420 425 430
 Leu Thr Arg Phe Ile Gly Asp Ser Arg Val Met Arg Trp Asn Ser Lys
 435 440 445
 Gln Phe Val Glu Ile Gln Ala Leu Pro Ser Arg Gly Ala Met Thr Leu
 450 455 460
 Gln Pro Phe Ser Phe Lys Asp Asn His Tyr Leu Ala Leu Gly Ser Asp
 465 470 475 480
 Tyr Thr Phe Ser Gln Ile Tyr Gln Trp Asp Lys Glu Lys Gln Leu Phe
 485 490 495

Lys Lys Phe Lys Glu Ile Tyr Val Gln Ala Pro Arg Ser Phe Thr Ala
500 505 510

Val Ser Thr Asp Arg Arg Asp Phe Leu Phe Ala Ser Ser Phe Lys Gly
515 520 525

Lys Thr Lys Ile Phe Glu His Ile Ile Val Asp Leu Ser Leu
530 535 540

<210> 98

<211> 1504

<212> PRT

<213> *Drosophila melanogaster*

<400> 98

Met Ala Ala Pro Ser Arg Thr Thr Leu Met Pro Pro Pro Phe Arg Leu
1 5 10 15

Gln Leu Arg Leu Leu Ile Leu Pro Ile Leu Leu Leu Leu Arg His Asp
20 25 30

Ala Val His Ala Glu Pro Tyr Ser Gly Gly Phe Gly Ser Ser Ala Val
35 40 45

Ser Ser Gly Gly Leu Gly Ser Val Gly Ile His Ile Pro Gly Gly Gly
50 55 60

Val Gly Val Ile Thr Glu Ala Arg Cys Pro Arg Val Cys Ser Cys Thr
65 70 75 80

Gly Leu Asn Val Asp Cys Ser His Arg Gly Leu Thr Ser Val Pro Arg
85 90 95

Lys Ile Ser Ala Asp Val Glu Arg Leu Glu Leu Gln Gly Asn Asn Leu
100 105 110

Thr Val Ile Tyr Glu Thr Asp Phe Gln Arg Leu Thr Lys Leu Arg Met
115 120 125

Leu Gln Leu Thr Asp Asn Gln Ile His Thr Ile Glu Arg Asn Ser Phe
130 135 140

Gln Asp Leu Val Ser Leu Glu Arg Leu Arg Leu Asn Asn Asn Arg Leu
145 150 155 160

Lys Ala Ile Pro Glu Asn Phe Val Thr Ser Ser Ala Ser Leu Leu Arg
165 170 175

Leu Asp Ile Ser Asn Asn Val Ile Thr Thr Val Gly Arg Arg Val Phe
180 185 190

Lys Gly Ala Gln Ser Leu Arg Ser Leu Gln Leu Asp Asn Asn Gln Ile
195 200 205

Thr Cys Leu Asp Glu His Ala Phe Lys Gly Leu Val Glu Leu Glu Ile
210 215 220

Leu Thr Leu Asn Asn Asn Leu Thr Ser Leu Pro His Asn Ile Phe
 225 230 235 240
 Gly Gly Leu Gly Arg Leu Arg Ala Leu Arg Leu Ser Asp Asn Pro Phe
 245 250 255
 Ala Cys Asp Cys His Leu Ser Trp Leu Ser Arg Phe Leu Arg Ser Ala
 260 265 270
 Thr Arg Leu Ala Pro Tyr Thr Arg Cys Gln Ser Pro Ser Gln Leu Lys
 275 280 285
 Gly Gln Asn Val Ala Asp Leu His Asp Gln Glu Phe Lys Cys Ser Gly
 290 295 300
 Leu Thr Glu His Ala Pro Met Glu Cys Gly Ala Glu Asn Ser Cys Pro
 305 310 315 320
 His Pro Cys Arg Cys Ala Asp Gly Ile Val Asp Cys Arg Glu Lys Ser
 325 330 335
 Leu Thr Ser Val Pro Val Thr Leu Pro Asp Asp Thr Thr Asp Val Arg
 340 345 350
 Leu Glu Gln Asn Phe Ile Thr Glu Leu Pro Pro Lys Ser Phe Ser Ser
 355 360 365
 Phe Arg Arg Leu Arg Arg Ile Asp Leu Ser Asn Asn Asn Ile Ser Arg
 370 375 380
 Ile Ala His Asp Ala Leu Ser Gly Leu Lys Gln Leu Thr Thr Leu Val
 385 390 395 400
 Leu Tyr Gly Asn Lys Ile Lys Asp Leu Pro Ser Gly Val Phe Lys Gly
 405 410 415
 Leu Gly Ser Leu Gln Leu Leu Leu Asn Ala Asn Glu Ile Ser Cys
 420 425 430
 Ile Arg Lys Asp Ala Phe Arg Asp Leu His Ser Leu Ser Leu Leu Ser
 435 440 445
 Leu Tyr Asp Asn Asn Ile Gln Ser Leu Ala Asn Gly Thr Phe Asp Ala
 450 455 460
 Met Lys Ser Ile Lys Thr Val His Leu Ala Lys Asn Pro Phe Ile Cys
 465 470 475 480
 Asp Cys Asn Leu Arg Trp Leu Ala Asp Tyr Leu His Lys Asn Pro Ile
 485 490 495
 Glu Thr Ser Gly Ala Arg Cys Glu Ser Pro Lys Arg Met His Arg Arg
 500 505 510
 Arg Ile Glu Ser Leu Arg Glu Glu Lys Phe Lys Cys Ser Trp Asp Glu
 515 520 525

Leu Arg Met Lys Leu Ser Gly Glu Cys Arg Met Asp Ser Asp Cys Pro
 530 535 540
 Ala Met Cys His Cys Glu Gly Thr Thr Val Asp Cys Thr Gly Arg Gly
 545 550 555 560
 Leu Lys Glu Ile Pro Arg Asp Ile Pro Leu His Thr Thr Glu Leu Leu
 565 570 575
 Leu Asn Asp Asn Glu Leu Gly Arg Ile Ser Ser Asp Gly Leu Phe Gly
 580 585 590
 Arg Leu Pro His Leu Val Lys Leu Glu Leu Lys Arg Asn Gln Leu Thr
 595 600 605
 Gly Ile Glu Pro Asn Ala Phe Glu Gly Ala Ser His Ile Gln Glu Leu
 610 615 620
 Gln Leu Gly Glu Asn Lys Ile Lys Glu Ile Ser Asn Lys Met Phe Leu
 625 630 635 640
 Gly Leu His Gln Leu Lys Thr Leu Asn Leu Tyr Asp Asn Gln Ile Ser
 645 650 655
 Cys Val Met Pro Gly Ser Phe Glu His Leu Asn Ser Leu Thr Ser Leu
 660 665 670
 Asn Leu Ala Ser Asn Pro Phe Asn Cys Asn Cys His Leu Ala Trp Phe
 675 680 685
 Ala Glu Trp Leu Arg Lys Lys Ser Leu Asn Gly Gly Ala Ala Arg Cys
 690 695 700
 Gly Ala Pro Ser Lys Val Arg Asp Val Gln Ile Lys Asp Leu Pro His
 705 710 715 720
 Ser Glu Phe Lys Cys Ser Ser Glu Asn Ser Glu Gly Cys Leu Gly Asp
 725 730 735
 Gly Tyr Cys Pro Pro Ser Cys Thr Cys Thr Gly Thr Val Val Arg Cys
 740 745 750
 Ser Arg Asn Gln Leu Lys Glu Ile Pro Arg Gly Ile Pro Ala Glu Thr
 755 760 765
 Ser Glu Leu Tyr Leu Glu Ser Asn Glu Ile Glu Gln Ile His Tyr Glu
 770 775 780
 Arg Ile Arg His Leu Arg Ser Leu Thr Arg Leu Asp Leu Ser Asn Asn
 785 790 795 800
 Gln Ile Thr Ile Leu Ser Asn Tyr Thr Phe Ala Asn Leu Thr Lys Leu
 805 810 815
 Ser Thr Leu Ile Ile Ser Tyr Asn Lys Leu Gln Cys Leu Gln Arg His
 820 825 830

Ala Leu Ser Gly Leu Asn Asn Leu Arg Val Leu Ser Leu His Gly Asn
 835 840 845
 Arg Ile Ser Met Leu Pro Glu Gly Ser Phe Glu Asp Leu Lys Ser Leu
 850 855 860
 Thr His Ile Ala Leu Gly Ser Asn Pro Leu Tyr Cys Asp Cys Gly Leu
 865 870 875 880
 Lys Trp Phe Ser Asp Trp Ile Lys Leu Asp Tyr Val Glu Pro Gly Ile
 885 890 895
 Ala Arg Cys Ala Glu Pro Glu Gln Met Lys Asp Lys Leu Ile Leu Ser
 900 905 910
 Thr Pro Ser Ser Ser Phe Val Cys Arg Gly Arg Val Arg Asn Asp Ile
 915 920 925
 Leu Ala Lys Cys Asn Ala Cys Phe Glu Gln Pro Cys Gln Asn Gln Ala
 930 935 940
 Gln Cys Val Ala Leu Pro Gln Arg Glu Tyr Gln Cys Leu Cys Gln Pro
 945 950 955 960
 Gly Tyr His Gly Lys His Cys Glu Phe Met Ile Asp Ala Cys Tyr Gly
 965 970 975
 Asn Pro Cys Arg Asn Asn Ala Thr Cys Thr Val Leu Glu Gly Arg
 980 985 990
 Phe Ser Cys Gln Cys Ala Pro Gly Tyr Thr Gly Ala Arg Cys Glu Thr
 995 1000 1005
 Asn Ile Asp Asp Cys Leu Gly Glu Ile Lys Cys Gln Asn Asn Ala Thr
 1010 1015 1020
 Cys Ile Asp Gly Val Glu Ser Tyr Lys Cys Glu Cys Gln Pro Gly Phe
 1025 1030 1035 1040
 Ser Gly Glu Phe Cys Asp Thr Lys Ile Gln Phe Cys Ser Pro Glu Phe
 1045 1050 1055
 Asn Pro Cys Ala Asn Gly Ala Lys Cys Met Asp His Phe Thr His Tyr
 1060 1065 1070
 Ser Cys Asp Cys Gln Ala Gly Phe His Gly Thr Asn Cys Thr Asp Asn
 1075 1080 1085
 Ile Asp Asp Cys Gln Asn His Met Cys Gln Asn Gly Gly Thr Cys Val
 1090 1095 1100
 Asp Gly Ile Asn Asp Tyr Gln Cys Arg Cys Pro Asp Asp Tyr Thr Gly
 1105 1110 1115 1120
 Lys Tyr Cys Glu Gly His Asn Met Ile Ser Met Met Tyr Pro Gln Thr
 1125 1130 1135

Ser Pro Cys Gln Asn His Glu Cys Lys His Gly Val Cys Phe Gln Pro
 1140 1145 1150
 Asn Ala Gln Gly Ser Asp Tyr Leu Cys Arg Cys His Pro Gly Tyr Thr
 1155 1160 1165
 Gly Lys Trp Cys Glu Tyr Leu Thr Ser Ile Ser Phe Val His Asn Asn
 1170 1175 1180
 Ser Phe Val Glu Leu Glu Pro Leu Arg Thr Arg Pro Glu Ala Asn Val
 1185 1190 1195 1200
 Thr Ile Val Phe Ser Ser Ala Glu Gln Asn Gly Ile Leu Met Tyr Asp
 1205 1210 1215
 Gly Gln Asp Ala His Leu Ala Val Glu Leu Phe Asn Gly Arg Ile Arg
 1220 1225 1230
 Val Ser Tyr Asp Val Gly Asn His Pro Val Ser Thr Met Tyr Ser Phe
 1235 1240 1245
 Glu Met Val Ala Asp Gly Lys Tyr His Ala Val Glu Leu Leu Ala Ile
 1250 1255 1260
 Lys Lys Asn Phe Thr Leu Arg Val Asp Arg Gly Leu Ala Arg Ser Ile
 1265 1270 1275 1280
 Ile Asn Glu Gly Ser Asn Asp Tyr Leu Lys Leu Thr Thr Pro Met Phe
 1285 1290 1295
 Leu Gly Gly Leu Pro Val Asp Pro Ala Gln Gln Ala Tyr Lys Asn Trp
 1300 1305 1310
 Gln Ile Arg Asn Leu Thr Ser Phe Lys Gly Cys Met Lys Glu Val Trp
 1315 1320 1325
 Ile Asn His Lys Leu Val Asp Phe Gly Asn Ala Gln Arg Gln Gln Lys
 1330 1335 1340
 Ile Thr Pro Gly Cys Ala Leu Leu Glu Gly Glu Gln Gln Glu Glu Glu
 1345 1350 1355 1360
 Asp Asp Glu Gln Asp Phe Met Asp Glu Thr Pro His Ile Lys Glu Glu
 1365 1370 1375
 Pro Val Asp Pro Cys Leu Glu Asn Lys Cys Arg Arg Gly Ser Arg Cys
 1380 1385 1390
 Val Pro Asn Ser Asn Ala Arg Asp Gly Tyr Gln Cys Lys Cys Lys His
 1395 1400 1405
 Gly Gln Arg Gly Arg Tyr Cys Asp Gln Gly Glu Gly Ser Thr Glu Pro
 1410 1415 1420
 Pro Thr Val Thr Ala Ala Ser Thr Cys Arg Lys Glu Gln Val Arg Glu
 1425 1430 1435 1440

Tyr Tyr Thr Glu Asn Asp Cys Arg Ser Arg Gln Pro Leu Lys Tyr Ala
1445 1450 1455
Lys Cys Val Gly Gly Cys Gly Asn Gln Cys Cys Ala Ala Lys Ile Val
1460 1465 1470
Arg Arg Arg Lys Val Arg Met Val Cys Ser Asn Asn Arg Lys Tyr Ile
1475 1480 1485
Lys Asn Leu Asp Ile Val Arg Lys Cys Gly Cys Thr Lys Lys Cys Tyr
1490 1495 1500

<210> 99
<211> 51
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Leucine Rich
Repeat C-terminal Domain Consensus Sequence

<400> 99
Asn Pro Phe Ile Cys Asp Cys Glu Leu Arg Trp Leu Leu Arg Trp Leu
1 5 10 15
Gln Ala Asn Arg His Leu Gln Asp Pro Val Asp Leu Arg Cys Ala Ser
20 25 30
Pro Glu Ser Leu Arg Gly Pro Leu Leu Leu Leu Pro Ser Ser Phe
35 40 45
Lys Cys Pro
50

<210> 100
<211> 51
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Leucine Rich
Repeat C-terminal domain Consensus Sequence

<400> 100
Asn Pro Phe Ile Cys Asp Cys Glu Leu Arg Trp Leu Leu Arg Trp Leu
1 5 10 15
Arg Glu Pro Arg Arg Leu Glu Asp Pro Glu Asp Leu Arg Cys Ala Ser
20 25 30
Pro Glu Ser Leu Arg Gly Pro Leu Leu Glu Leu Leu Pro Ser Asp Phe

35

40

45

Ser Cys Pro
50

<210> 101
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
Leucine-richrepeats Consensus Sequence

<400> 101
Leu Pro Asn Leu Arg Glu Leu Asp Leu Ser Asn Asn Gln Leu Ser Ser
1 5 10 15

Leu Pro Pro Gly Ala Phe Gln Gly
20

<210> 102
<211> 199
<212> PRT
<213> Homo sapiens

<400> 102
Met Glu Thr Phe Pro Leu Leu Leu Ser Leu Gly Leu Val Leu Ala
1 5 10 15

Glu Ala Ser Glu Ser Thr Met Lys Ile Ile Lys Glu Glu Phe Thr Asp
20 25 30

Glu Glu Met Gln Tyr Asp Met Ala Lys Ser Gly Gln Glu Lys Gln Thr
35 40 45

Ile Glu Ile Leu Met Asn Pro Ile Leu Leu Val Lys Asn Thr Ser Leu
50 55 60

Ser Met Ser Lys Asp Asp Met Ser Ser Thr Leu Leu Thr Phe Arg Ser
65 70 75 80

Leu His Tyr Asn Asp Pro Lys Gly Asn Ser Ser Gly Asn Asp Lys Glu
85 90 95

Cys Cys Asn Asp Met Thr Val Trp Arg Lys Val Ser Glu Ala Asn Gly
100 105 110

Ser Cys Lys Trp Ser Asn Asn Phe Ile Arg Ser Ser Thr Glu Val Met
115 120 125

Arg Arg Val His Arg Ala Pro Ser Cys Lys Phe Val Gln Asn Pro Gly
130 135 140

Ile Ser Cys Cys Glu Ser Leu Glu Leu Asn Thr Val Cys Gln Phe

145	150	155	160
Thr Thr Gly Lys Gln Phe Pro Arg Cys Gln Tyr His Ser Val Thr Ser			
165	170	175	
Leu Glu Lys Ile Leu Thr Val Leu Thr Gly His Ser Leu Met Ser Trp			
180	185	190	
Leu Val Cys Gly Ser Lys Leu			
195			

<210> 103
 <211> 124
 <212> PRT
 <213> Balaenoptera acutorostrata

<400> 103	10	15
Arg Glu Ser Pro Ala Met Lys Phe Gln Arg Gln His Met Asp Ser Gly		
1	5	
Asn Ser Pro Gly Asn Asn Pro Asn Tyr Cys Asn Gln Met Met Met Arg		
20	25	30
Arg Lys Met Thr Gln Gly Arg Cys Lys Pro Val Asn Thr Phe Val His		
35	40	45
Glu Ser Leu Glu Asp Val Lys Ala Val Cys Ser Gln Lys Asn Val Leu		
50	55	60
Cys Lys Asn Gly Arg Thr Asn Cys Tyr Glu Ser Asn Ser Thr Met His		
65	70	80
Ile Thr Asp Cys Arg Gln Thr Gly Ser Ser Lys Tyr Pro Asn Cys Ala		
85	90	95
Tyr Lys Thr Ser Gln Lys Glu Lys His Ile Ile Val Ala Cys Glu Gly		
100	105	110
Asn Pro Tyr Val Pro Val His Phe Asp Asn Ser Val		
115	120	

<210> 104
 <211> 503
 <212> PRT
 <213> Cricetulus griseus

<400> 104	10	15
Met Leu His Val Leu Trp Thr Phe Trp Ile Leu Val Ala Met Thr Asp		
1	5	
Leu Ser Arg Lys Gly Cys Ser Ala Gln Ala Ser Leu Ser Cys Asp Ala		
20	25	30
Ala Gly Val Cys Asp Gly Arg Ser Arg Ser Phe Thr Ser Ile Pro Ser		
35	40	45

Gly Leu Thr Ala Ala Met Lys Ser Leu Asp Leu Ser Asn Asn Lys Ile
 50 55 60
 Thr Ser Ile Gly His Gly Asp Leu Arg Gly Cys Val Asn Leu Arg Ala
 65 70 75 80
 Leu Ile Leu Gln Ser Ser Gly Ile Asn Thr Ile Glu Glu Asp Ala Phe
 85 90 95
 Ser Ser Leu Ser Lys Leu Glu Tyr Leu Asp Leu Ser Asp Asn His Leu
 100 105 110
 Ser Asn Leu Ser Ser Trp Phe Arg Pro Leu Ser Ser Leu Lys Tyr
 115 120 125
 Leu Asn Leu Leu Gly Asn Pro Tyr Arg Ile Leu Gly Glu Thr Pro Leu
 130 135 140
 Phe Leu Asn Leu Thr His Leu Gln Thr Leu Arg Val Gly Asn Val Ala
 145 150 155 160
 Thr Phe Ser Gly Ile Arg Arg Thr Asp Phe Ala Gly Leu Thr Ser Leu
 165 170 175
 Asp Glu Leu Glu Ile Lys Ala Leu Ser Leu Gln Asn Tyr Glu Pro Gly
 180 185 190
 Ser Leu Gln Ser Ile Gln Ser Ile His His Leu Thr Phe His Leu Ser
 195 200 205
 Gln Ser Asp Phe Leu Leu Gly Val Phe Glu Asp Thr Leu Ser Ser Val
 210 215 220
 Gly Tyr Leu Glu Leu Arg Asp Ala Asn Leu Asp Ser Phe Tyr Phe Ser
 225 230 235 240
 Glu Leu Ser Thr Asp Glu Met Asn Ser Pro Met Lys Lys Leu Ala Phe
 245 250 255
 Gln Asn Ala Asp Leu Thr Asp Glu Ser Phe Asn Glu Leu Leu Lys Leu
 260 265 270
 Leu Arg Tyr Thr Pro Glu Leu Leu Glu Val Glu Phe Asp Asp Cys Thr
 275 280 285
 Leu Asn Gly Val Gly Asp Phe Gln Pro Ser Glu Ser Asp Val Val Arg
 290 295 300
 Glu Leu Gly Lys Val Glu Thr Leu Ile Ile Arg Arg Leu His Ile Pro
 305 310 315 320
 Arg Phe Tyr Ser Phe Tyr Asp Leu Ser Thr Val Tyr Thr Leu Leu Glu
 325 330 335
 Lys Val Lys Arg Ile Thr Val Glu Asn Ser Lys Val Phe Leu Val Pro
 340 345 350

Cys Leu Phe Ser Gln His Leu Lys Ser Leu Glu Phe Leu Asp Leu Ser
 355 360 365
 Glu Asn Leu Met Val Glu Glu Tyr Leu Lys Asn Ala Ala Cys Glu Gly
 370 375 380
 Ser Trp Pro Ser Leu Gln Thr Leu Ile Leu Arg Gln Asn Arg Leu Lys
 385 390 395 400
 Ser Ile Glu Arg Thr Gly Lys Ile Leu Leu Thr Leu Lys Asn Leu Thr
 405 410 415
 Ala Leu Asp Ile Ser Arg Asn Ser Phe Gln Ser Met Pro Asp Ser Cys
 420 425 430
 Gln Trp Pro Gly Lys Met Arg Phe Leu Asn Leu Ser Ser Thr Gly Ile
 435 440 445
 Gln Ala Val Lys Met Cys Ile Pro Gln Thr Leu Glu Val Leu Asp Val
 450 455 460
 Ser Asn Asn Asn Leu Ile Ser Phe Ser Leu Phe Leu Pro Leu Leu Arg
 465 470 475 480
 Glu Leu Tyr Ile Ser Arg Asn Lys Leu His Thr Leu Pro Met Pro Pro
 485 490 495
 Cys Ser Leu Cys Tyr Trp Ser
 500

<210> 105
 <211> 567
 <212> PRT
 <213> Mus musculus

<400> 105
 Met Leu Arg Ser Ala Leu Leu Ser Ala Val Leu Ala Leu Leu Arg Ala
 1 5 10 15
 Gln Pro Phe Pro Cys Pro Lys Thr Cys Lys Cys Val Val Arg Asp Ala
 20 25 30
 Ala Gln Cys Ser Gly Gly Ser Val Ala His Ile Ala Glu Leu Gly Leu
 35 40 45
 Pro Thr Asn Leu Thr His Ile Leu Leu Phe Arg Met Asp Gln Gly Ile
 50 55 60
 Leu Arg Asn His Ser Phe Ser Gly Met Thr Val Leu Gln Arg Leu Met
 65 70 75 80
 Leu Ser Asp Ser His Ile Ser Ala Ile Asp Pro Gly Thr Phe Asn Asp
 85 90 95
 Leu Val Lys Leu Lys Thr Leu Arg Leu Thr Arg Asn Lys Ile Ser Arg

100	105	110	
Leu Pro Arg Ala Ile Leu Asp Lys Met Val Leu Leu Glu Gln Leu Phe			
115	120	125	
Leu Asp His Asn Ala Leu Arg Asp Leu Asp Gln Asn Leu Phe Gln Gln			
130	135	140	
Leu Arg Asn Leu Gln Glu Leu Gly Leu Asn Gln Asn Gln Leu Ser Phe			
145	150	155	160
Leu Pro Ala Asn Leu Phe Ser Ser Leu Arg Glu Leu Lys Leu Leu Asp			
165	170	175	
Leu Ser Arg Asn Asn Leu Thr His Leu Pro Lys Gly Leu Leu Gly Ala			
180	185	190	
Gln Val Lys Leu Glu Lys Leu Leu Tyr Ser Asn Gln Leu Thr Ser			
195	200	205	
Val Asp Ser Gly Leu Leu Ser Asn Leu Gly Ala Leu Thr Glu Leu Arg			
210	215	220	
Leu Glu Arg Asn His Leu Arg Ser Val Ala Pro Gly Ala Phe Asp Arg			
225	230	235	240
Leu Gly Asn Leu Ser Ser Leu Thr Leu Ser Gly Asn Leu Leu Glu Ser			
245	250	255	
Leu Pro Pro Ala Leu Phe Leu His Val Ser Ser Val Ser Arg Leu Thr			
260	265	270	
Leu Phe Glu Asn Pro Leu Glu Glu Leu Pro Asp Val Leu Phe Gly Glu			
275	280	285	
Met Ala Gly Leu Arg Glu Leu Trp Leu Asn Gly Thr His Leu Ser Thr			
290	295	300	
Leu Pro Ala Ala Ala Phe Arg Asn Leu Ser Gly Leu Gln Thr Leu Gly			
305	310	315	320
Leu Thr Arg Asn Pro Arg Leu Ser Ala Leu Pro Arg Gly Val Phe Gln			
325	330	335	
Gly Leu Arg Glu Leu Arg Val Leu Ala Leu His Thr Asn Ala Leu Ala			
340	345	350	
Glu Leu Arg Asp Asp Ala Leu Arg Gly Leu Gly His Leu Arg Gln Val			
355	360	365	
Ser Leu Arg His Asn Arg Leu Arg Ala Leu Pro Arg Thr Leu Phe Arg			
370	375	380	
Asn Leu Ser Ser Leu Glu Ser Val Gln Leu Glu His Asn Gln Leu Glu			
385	390	395	400
Thr Leu Pro Gly Asp Val Phe Ala Ala Leu Pro Gln Leu Thr Gln Val			

405	410	415	
Leu Leu Gly His Asn Pro Trp Leu Cys Asp Cys Gly Leu Trp Pro Phe			
420	425	430	
Leu Gln Trp Leu Arg His His Pro Asp Ile Leu Gly Arg Asp Glu Pro			
435	440	445	
Pro Gln Cys Arg Gly Pro Glu Pro Arg Ala Ser Leu Ser Phe Trp Glu			
450	455	460	
Leu Leu Gln Gly Asp Pro Trp Cys Pro Asp Pro Arg Ser Leu Pro Leu			
465	470	475	480
Asp Pro Pro Thr Glu Asn Ala Leu Glu Ala Pro Val Pro Ser Trp Leu			
485	490	495	
Pro Asn Ser Trp Gln Ser Gln Thr Trp Ala Gln Leu Val Ala Arg Gly			
500	505	510	
Glu Ser Pro Asn Asn Arg Leu Tyr Trp Gly Leu Tyr Ile Leu Leu Leu			
515	520	525	
Val Ala Gln Ala Ile Ile Ala Ala Phe Ile Val Phe Ala Met Ile Lys			
530	535	540	
Ile Gly Gln Leu Phe Arg Thr Leu Ile Arg Glu Lys Leu Leu Leu Glu			
545	550	555	560
Ala Met Gly Lys Ser Cys Asn			
565			

<210> 106
 <211> 567
 <212> PRT
 <213> Mus musculus

<400> 106			
Met Leu Arg Ser Ala Leu Leu Ser Ala Val Leu Pro Leu Leu Arg Ala			
1	5	10	15
Gln Pro Phe Pro Cys Pro Lys Thr Cys Lys Cys Val Val Arg Asp Ala			
20	25	30	
Ala Gln Cys Ser Gly Gly Ser Val Ala His Ile Ala Glu Leu Gly Leu			
35	40	45	
Pro Thr Asn Leu Thr His Ile Leu Leu Phe Arg Met Asp Gln Gly Ile			
50	55	60	
Leu Arg Asn His Ser Phe Ser Gly Met Thr Val Leu Gln Arg Gln Met			
65	70	75	80
Leu Ser Asp Ser His Ile Ser Ala Ile Asp Pro Gly Thr Phe Asn Asp			
85	90	95	

Leu Val Lys Leu Lys Thr Leu Arg Leu Thr Arg Asn Lys Ile Ser Arg
 100 105 110
 Leu Pro Arg Ala Ile Leu Asp Lys Met Val Leu Leu Glu Gln Leu Phe
 115 120 125
 Leu Asp His Asn Ala Leu Arg Asp Leu Asp Gln Asn Leu Phe Gln Gln
 130 135 140
 Leu Arg Asn Leu Gln Glu Leu Gly Leu Asn Gln Asn Gln Leu Ser Phe
 145 150 155 160
 Leu Pro Ala Asn Leu Phe Ser Ser Leu Arg Glu Leu Lys Leu Leu Asp
 165 170 175
 Leu Ser Arg Asn Asn Leu Thr His Leu Pro Lys Gly Leu Leu Gly Ala
 180 185 190
 Gln Val Lys Leu Glu Lys Leu Leu Tyr Ser Asn Gln Leu Thr Ser
 195 200 205
 Val Asp Ser Gly Leu Leu Ser Asn Leu Gly Ala Leu Thr Glu Leu Arg
 210 215 220
 Leu Glu Arg Asn His Leu Arg Ser Val Ala Pro Gly Ala Phe Asp Arg
 225 230 235 240
 Leu Gly Asn Leu Ser Ser Leu Thr Leu Ser Gly Asn Leu Leu Glu Ser
 245 250 255
 Leu Pro Pro Ala Leu Phe Leu His Val Ser Ser Val Ser Arg Leu Thr
 260 265 270
 Leu Phe Glu Asn Pro Leu Glu Leu Pro Asp Val Leu Phe Gly Glu
 275 280 285
 Met Ala Gly Leu Arg Glu Leu Trp Leu Asn Gly Thr His Leu Ser Thr
 290 295 300
 Leu Pro Ala Ala Ala Phe Arg Asn Leu Ser Gly Leu Gln Thr Leu Gly
 305 310 315 320
 Leu Thr Arg Asn Pro Arg Leu Ser Ala Leu Pro Arg Gly Val Phe Gln
 325 330 335
 Gly Leu Arg Glu Leu Arg Val Leu Gly Leu His Thr Asn Ala Leu Ala
 340 345 350
 Glu Leu Arg Asp Asp Ala Leu Arg Gly Leu Gly His Leu Arg Gln Val
 355 360 365
 Ser Leu Arg His Asn Arg Leu Arg Ala Leu Pro Arg Thr Leu Phe Arg
 370 375 380
 Asn Leu Ser Ser Leu Glu Ser Val Gln Leu Glu His Asn Gln Leu Glu
 385 390 395 400

Thr Leu Pro Gly Asp Val Phe Ala Ala Leu Pro Gln Leu Thr Gln Val
 405 410 415
 Leu Leu Gly His Asn Pro Trp Leu Cys Asp Cys Gly Leu Trp Arg Phe
 420 425 430
 Leu Gln Trp Leu Arg His His Pro Asp Ile Leu Gly Arg Asp Glu Pro
 435 440 445
 Pro Gln Cys Arg Gly Pro Glu Pro Arg Ala Ser Leu Ser Phe Trp Glu
 450 455 460
 Leu Leu Gln Gly Asp Pro Trp Cys Pro Asp Pro Arg Ser Leu Pro Leu
 465 470 475 480
 Asp Pro Pro Thr Glu Asn Ala Leu Glu Ala Pro Val Pro Ser Trp Leu
 485 490 495
 Pro Asn Ser Trp Gln Ser Gln Thr Trp Ala Gln Leu Val Ala Arg Gly
 500 505 510
 Glu Ser Pro Asn Asn Arg Leu Tyr Trp Gly Leu Tyr Ile Leu Leu Leu
 515 520 525
 Val Ala Gln Ala Ile Ile Ala Ala Phe Ile Val Phe Ala Met Ile Lys
 530 535 540
 Ile Gly Gln Leu Phe Arg Thr Leu Ile Arg Glu Lys Leu Leu Leu Glu
 545 550 555 560
 Ala Met Gly Lys Ser Cys Asn
 565

<210> 107
 <211> 661
 <212> PRT
 <213> Mus musculus

<400> 107
 Met Ala Pro Asp Ile Ser Cys Phe Phe Leu Val Ala Leu Phe Leu Ala
 1 5 10 15
 Ser Cys Arg Ala Thr Thr Ser Ser Asp Gln Lys Cys Ile Glu Lys Glu
 20 25 30
 Val Asn Lys Thr Tyr Asn Cys Glu Asn Leu Gly Leu Asn Glu Ile Pro
 35 40 45
 Gly Thr Leu Pro Asn Ser Thr Glu Cys Leu Glu Phe Ser Phe Asn Val
 50 55 60
 Leu Pro Thr Ile Gln Asn Thr Thr Phe Ser Arg Leu Ile Asn Leu Thr
 65 70 75 80
 Phe Leu Asp Leu Thr Arg Cys Gln Ile Tyr Trp Ile His Glu Asp Thr
 85 90 95

Phe Gln Ser Gln His Arg Leu Asp Thr Leu Val Leu Thr Ala Asn Pro
 100 105 110
 Leu Ile Phe Met Ala Glu Thr Ala Leu Ser Gly Pro Lys Ala Leu Lys
 115 120 125
 His Leu Phe Phe Ile Gln Thr Gly Ile Ser Ser Ile Asp Phe Ile Pro
 130 135 140
 Leu His Asn Gln Lys Thr Leu Glu Ser Leu Tyr Leu Gly Ser Asn His
 145 150 155 160
 Ile Ser Ser Ile Lys Leu Pro Lys Gly Phe Pro Thr Glu Lys Leu Lys
 165 170 175
 Val Leu Asp Phe Gln Asn Asn Ala Ile His Tyr Leu Ser Lys Glu Asp
 180 185 190
 Met Ser Ser Leu Gln Gln Ala Thr Asn Leu Ser Leu Asn Leu Asn Gly
 195 200 205
 Asn Asp Ile Ala Gly Ile Glu Pro Gly Ala Phe Asp Ser Ala Val Phe
 210 215 220
 Gln Ser Leu Asn Phe Gly Gly Thr Gln Asn Leu Leu Val Ile Phe Lys
 225 230 235 240
 Gly Leu Lys Asn Ser Thr Ile Gln Ser Leu Trp Leu Gly Thr Phe Glu
 245 250 255
 Asp Met Asp Asp Glu Asp Ile Ser Pro Ala Val Phe Glu Gly Leu Cys
 260 265 270
 Glu Met Ser Val Glu Ser Ile Asn Leu Gln Lys His Tyr Phe Phe Asn
 275 280 285
 Ile Ser Ser Asn Thr Phe His Cys Phe Ser Gly Leu Gln Glu Leu Asp
 290 295 300
 Leu Thr Ala Thr His Leu Ser Glu Leu Pro Ser Gly Leu Val Gly Leu
 305 310 315 320
 Ser Thr Leu Lys Leu Val Leu Ser Ala Asn Lys Phe Glu Asn Leu
 325 330 335
 Cys Gln Ile Ser Ala Ser Asn Phe Pro Ser Leu Thr His Leu Ser Ile
 340 345 350
 Lys Gly Asn Thr Lys Arg Leu Glu Leu Gly Thr Gly Cys Leu Glu Asn
 355 360 365
 Leu Glu Asn Leu Arg Glu Leu Asp Leu Ser His Asp Asp Ile Glu Thr
 370 375 380
 Ser Asp Cys Cys Asn Leu Gln Leu Arg Asn Leu Ser His Leu Gln Ser
 385 390 395 400

Leu Asn Leu Ser Tyr Asn Glu Pro Leu Ser Leu Lys Thr Glu Ala Phe
 405 410 415
 Lys Glu Cys Pro Gln Leu Glu Leu Leu Asp Leu Ala Phe Thr Arg Leu
 420 425 430
 Lys Val Lys Asp Ala Gln Ser Pro Phe Gln Asn Leu His Leu Leu Lys
 435 440 445
 Val Leu Asn Leu Ser His Ser Leu Leu Asp Ile Ser Ser Glu Gln Leu
 450 455 460
 Phe Asp Gly Leu Pro Ala Leu Gln His Leu Asn Leu Gln Gly Asn His
 465 470 475 480
 Phe Pro Lys Gly Asn Ile Gln Lys Thr Asn Ser Leu Gln Thr Leu Gly
 485 490 495
 Arg Leu Glu Ile Leu Val Leu Ser Phe Cys Asp Leu Ser Ser Ile Asp
 500 505 510
 Gln His Ala Phe Thr Ser Leu Lys Met Met Asn His Val Asp Leu Ser
 515 520 525
 His Asn Arg Leu Thr Ser Ser Ile Glu Ala Leu Ser His Leu Lys
 530 535 540
 Gly Ile Tyr Leu Asn Leu Ala Ser Asn His Ile Ser Ile Ile Leu Pro
 545 550 555 560
 Ser Leu Leu Pro Ile Leu Ser Gln Gln Arg Thr Ile Asn Leu Arg Gln
 565 570 575
 Asn Pro Leu Asp Cys Thr Cys Ser Asn Ile Tyr Phe Leu Glu Trp Tyr
 580 585 590
 Lys Glu Asn Met Gln Lys Leu Glu Asp Thr Glu Asp Thr Leu Cys Glu
 595 600 605
 Asn Pro Pro Leu Leu Arg Gly Val Arg Leu Ser Asp Val Thr Leu Ser
 610 615 620
 Cys Ser Met Ala Ala Val Gly Ile Phe Phe Leu Ile Val Phe Leu Leu
 625 630 635 640
 Val Phe Ala Ile Leu Leu Ile Phe Ala Val Lys Tyr Phe Leu Arg Trp
 645 650 655
 Lys Tyr Gln His Ile
 660

<210> 108
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 108
 Val Thr Leu Ser Pro Lys Asp Cys Gln Val Phe Arg Ser Asp His Gly
 1 5 10 15
 Ser Ser Ile Ser Cys Gln Pro Pro Ala Glu Ile Pro Gly Tyr Leu Pro
 20 25 30
 Ala Asp Thr Val His Leu Ala Val Glu Phe Phe Asn Leu Thr His Leu
 35 40 45
 Pro Ala Asn Leu Leu Gln Gly Ala Ser Lys Leu Gln Glu Leu His Leu
 50 55 60
 Ser Ser Asn Gly Leu Glu Ser Leu Ser Pro Glu Phe Leu Arg Pro Val
 65 70 75 80
 Pro Gln Leu Arg Val Leu Asp Leu Thr Arg Asn Ala Leu Thr Gly Leu
 85 90 95
 Pro Pro Gly Leu Phe Gln Ala Ser Ala Thr Leu Asp Thr Leu Val Leu
 100 105 110
 Lys Glu Asn Gln Leu Glu Val Leu Glu Val Ser Trp Leu His Gly Leu
 115 120 125
 Lys Ala Leu Gly His Leu Asp Leu Ser Gly Asn Arg Leu Arg Lys Leu
 130 135 140
 Pro Pro Gly Leu Leu Ala Asn Phe Thr Leu Leu Arg Thr Leu Asp Leu
 145 150 155 160
 Gly Glu Asn Gln Leu Glu Thr Leu Pro Pro Asp Leu Leu Arg Gly Pro
 165 170 175
 Leu Gln Leu Glu Arg Leu His Leu Glu Gly Asn Lys Leu Gln Val Leu
 180 185 190
 Gly Lys Asp Leu Leu Pro Gln Pro Asp Leu Arg Tyr Leu Phe Leu
 195 200 205
 Asn Gly Asn Lys Leu Ala Arg Val Ala Ala Gly Ala Phe Gln Gly Leu
 210 215 220
 Arg Gln Leu Asp Met Leu Asp Leu Ser Asn Asn Ser Leu Ala Ser Val
 225 230 235 240
 Pro Glu Gly Leu Trp Ala Ser Leu Gly Gln Pro Asn Trp Asp Met Arg
 245 250 255
 Asp Gly Phe Asp Ile Ser Gly Asn Pro Trp Ile Cys Asp Gln Asn Leu
 260 265 270
 Ser Asp Leu Tyr Arg Trp Leu Gln Ala Gln Lys Asp Lys Met Phe Ser
 275 280 285
 Gln Asn Asp Thr Arg Cys Ala Gly Pro Glu Ala Val Lys Gly Gln Thr

290

295

300

Leu Leu Ala Val Ala Lys Ser Gln
305 310

<210> 109
<211> 141
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: TIR Domain
Consensus Sequence

<400> 109
Ala Phe Ile Ser Phe Ser Gly Lys Asp Asp Arg Asp Thr Phe Val Ser
1 5 10 15

His Leu Leu Lys Glu Leu Glu Glu Lys Pro Gly Ile Lys Leu Phe Ile
20 25 30

Asp Asp Arg Asp Glu Leu Pro Gly Glu Ser Ile Leu Glu Asn Leu Phe
35 40 45

Glu Ala Ile Glu Lys Ser Arg Arg Ala Ile Val Ile Leu Ser Ser Asn
50 55 60

Tyr Ala Ser Ser Ser Trp Cys Leu Asp Glu Leu Val Glu Ala Val Lys
65 70 75 80

Leu Ala Leu Glu Gln Gly Asn Lys Lys Val Ile Leu Pro Ile Phe Tyr
85 90 95

Lys Val Asp Pro Ser Asp Val Arg Lys Gln Ser Gly Lys Phe Gly Lys
100 105 110

Ala Phe Leu Lys Thr Leu Lys Trp Phe Gly Asp Lys Thr Ser Gln Arg
115 120 125

Ile Arg Phe Trp Lys Lys Ala Leu Tyr Ala Met Pro Val
130 135 140

<210> 110
<211> 1242
<212> PRT
<213> Homo sapiens

<400> 110
Met Asp Glu Lys Val Asn Ile Thr Val Cys Gly Glu Tyr Thr Tyr Gly
1 5 10 15

Lys Pro Val Pro Gly Leu Ala Thr Val Ser Leu Cys Arg Lys Leu Ser
20 25 30

Arg Val Leu Asn Cys Asp Lys Gln Glu Val Cys Glu Glu Phe Ser Gln

35	40	45	
Gln Leu Asn Ser Asn Gly Cys Ile Thr Gln Gln Val His Thr Lys Met			
50	55	60	
Leu Gln Ile Thr Asn Thr Gly Phe Glu Met Lys Leu Arg Val Glu Ala			
65	70	75	80
Arg Ile Arg Glu Glu Gly Thr Asp Leu Glu Val Thr Ala Asn Arg Ile			
85	90	95	
Ser Glu Ile Thr Asn Ile Val Ser Lys Leu Lys Phe Val Lys Val Asp			
100	105	110	
Ser His Phe Arg Gln Gly Ile Pro Phe Phe Ala Gln Val Leu Leu Val			
115	120	125	
Asp Gly Lys Gly Val Pro Ile Pro Asn Lys Leu Phe Phe Ile Ser Val			
130	135	140	
Asn Asp Ala Asn Tyr Tyr Ser Asn Ala Thr Thr Asn Glu Gln Gly Leu			
145	150	155	160
Ala Gln Phe Ser Ile Asn Thr Thr Ser Ile Ser Val Asn Lys Leu Phe			
165	170	175	
Val Arg Val Phe Thr Val His Pro Asn Leu Cys Phe His Tyr Ser Trp			
180	185	190	
Val Ala Glu Asp His Gln Gly Ala Gln His Thr Ala Asn Arg Val Phe			
195	200	205	
Ser Leu Ser Gly Ser Tyr Ile His Leu Glu Pro Val Ala Gly Thr Leu			
210	215	220	
Pro Cys Gly His Thr Glu Thr Ile Thr Ala His Tyr Thr Leu Asn Arg			
225	230	235	240
Gln Ala Met Gly Glu Leu Ser Glu Leu Ser Phe His Tyr Leu Ile Met			
245	250	255	
Ala Lys Gly Val Ile Val Arg Ser Gly Thr His Thr Leu Pro Val Glu			
260	265	270	
Ser Gly Asp Met Lys Gly Ser Phe Ala Leu Ser Phe Pro Val Glu Ser			
275	280	285	
Asp Val Ala Pro Ile Ala Arg Met Phe Ile Phe Ala Ile Leu Pro Asp			
290	295	300	
Gly Glu Val Val Gly Asp Ser Glu Lys Phe Glu Ile Glu Asn Cys Leu			
305	310	315	320
Ala Asn Lys Val Asp Leu Ser Phe Ser Pro Ala Gln Ser Pro Pro Ala			
325	330	335	
Ser His Ala His Leu Gln Val Ala Ala Ala Pro Gln Ser Leu Cys Ala			

340	345	350
Leu Arg Ala Val Asp Gln Ser Val Leu Leu Met Lys Pro Glu Ala Glu		
355	360	365
Leu Ser Val Ser Ser Val Tyr Asn Leu Leu Thr Val Lys Asp Leu Thr		
370	375	380
Asn Phe Pro Asp Asn Val Asp Gln Gln Glu Glu Glu Gln Gly His Cys		
385	390	395
Pro Arg Pro Phe Phe Ile His Asn Gly Ala Ile Tyr Val Pro Leu Ser		
405	410	415
Ser Asn Glu Ala Asp Ile Tyr Ser Phe Leu Lys Gly Met Gly Leu Lys		
420	425	430
Val Phe Thr Asn Ser Lys Ile Arg Lys Pro Lys Ser Cys Ser Val Ile		
435	440	445
Pro Ser Val Ser Ala Gly Ala Val Gly Gln Gly Tyr Tyr Gly Ala Gly		
450	455	460
Leu Gly Val Val Glu Arg Pro Tyr Val Pro Gln Leu Gly Thr Tyr Asn		
465	470	475
Val Ile Pro Leu Asn Asn Glu Gln Ser Ser Gly Pro Val Pro Glu Thr		
485	490	495
Val Arg Ser Tyr Phe Pro Glu Thr Trp Ile Trp Glu Leu Val Ala Val		
500	505	510
Asn Ser Ser Gly Val Ala Glu Val Gly Val Thr Val Pro Asp Thr Ile		
515	520	525
Thr Glu Trp Lys Ala Gly Ala Phe Cys Leu Ser Glu Asp Ala Gly Leu		
530	535	540
Gly Ile Ser Ser Thr Ala Ser Leu Arg Ala Phe Gln Pro Phe Phe Val		
545	550	555
Glu Leu Thr Met Pro Tyr Ser Val Ile Arg Gly Glu Val Phe Thr Leu		
565	570	575
Lys Ala Thr Val Leu Asn Tyr Leu Pro Lys Cys Ile Arg Val Ser Val		
580	585	590
Gln Leu Lys Ala Ser Pro Ala Phe Leu Ala Ser Gln Asn Thr Lys Gly		
595	600	605
Glu Glu Ser Tyr Cys Ile Cys Gly Asn Glu Arg Gln Thr Leu Ser Trp		
610	615	620
Thr Val Thr Pro Lys Thr Leu Gly Asn Val Asn Phe Ser Val Ser Ala		
625	630	635
Glu Ala Met Gln Ser Leu Glu Leu Cys Gly Asn Glu Val Val Glu Val		

645	650	655
Pro Glu Ile Lys Arg Lys Asp Thr Val Ile Lys Thr Leu Leu Val Glu		
660	665	670
Ala Glu Gly Ile Glu Gln Glu Lys Thr Phe Ser Ser Met Thr Cys Ala		
675	680	685
Ser Gly Ala Asn Val Ser Glu Gln Leu Ser Leu Lys Leu Pro Ser Asn		
690	695	700
Val Val Lys Glu Ser Ala Arg Ala Ser Phe Ser Val Leu Gly Asp Ile		
705	710	715
Leu Gly Ser Ala Met Gln Asn Ile Gln Asn Leu Leu Gln Met Pro Tyr		
725	730	735
Gly Cys Gly Glu Gln Asn Met Val Leu Phe Ala Pro Asn Ile Tyr Val		
740	745	750
Leu Asn Tyr Leu Asn Glu Thr Gln Gln Leu Thr Gln Glu Ile Lys Ala		
755	760	765
Lys Ala Val Gly Tyr Leu Ile Thr Gly Tyr Gln Arg Gln Leu Asn Tyr		
770	775	780
Lys His Gln Asp Gly Ser Tyr Ser Thr Phe Gly Glu Arg Tyr Gly Arg		
785	790	795
Asn Gln Gly Asn Thr Trp Leu Thr Ala Phe Val Leu Lys Thr Phe Ala		
805	810	815
Gln Ala Arg Ser Tyr Ile Phe Ile Asp Glu Ala His Ile Thr Gln Ser		
820	825	830
Leu Thr Trp Leu Ser Gln Met Gln Lys Asp Asn Gly Cys Phe Arg Ser		
835	840	845
Ser Gly Ser Leu Leu Asn Asn Ala Ile Lys Gly Gly Val Glu Asp Glu		
850	855	860
Ala Thr Leu Ser Ala Tyr Val Thr Ile Ala Leu Leu Glu Ile Pro Leu		
865	870	875
Pro Val Thr Asn Pro Ile Val Arg Asn Ala Leu Phe Cys Leu Glu Ser		
885	890	895
Ala Trp Asn Val Ala Lys Glu Gly Thr His Gly Ser His Val Tyr Thr		
900	905	910
Lys Ala Leu Leu Ala Tyr Ala Phe Ser Leu Leu Gly Lys Gln Asn Gln		
915	920	925
Asn Arg Glu Ile Leu Asn Ser Leu Asp Lys Glu Ala Val Lys Glu Asp		
930	935	940
Asn Leu Val His Trp Glu Arg Pro Gln Arg Pro Lys Ala Pro Val Gly		

945	950	955	960
His Leu Tyr Gln Thr Gln Ala Pro Ser Ala Glu Val Glu Met Thr Ser			
965	970	975	
Tyr Val Leu Leu Ala Tyr Leu Thr Ala Gln Pro Ala Pro Thr Ser Gly			
980	985	990	
Asp Leu Thr Ser Ala Thr Asn Ile Val Lys Trp Ile Met Lys Gln Gln			
995	1000	1005	
Asn Ala Gln Gly Gly Phe Ser Ser Thr Gln Asp Thr Val Val Ala Leu			
1010	1015	1020	
His Ala Leu Ser Arg Tyr Gly Ala Ala Thr Phe Thr Arg Thr Glu Lys			
1025	1030	1035	1040
Thr Ala Gln Val Thr Val Gln Asp Ser Gln Thr Phe Ser Thr Asn Phe			
1045	1050	1055	
Gln Val Asp Asn Asn Leu Leu Leu Gln Gln Ile Ser Leu Pro			
1060	1065	1070	
Glu Leu Pro Gly Glu Tyr Val Ile Thr Val Thr Gly Glu Arg Cys Val			
1075	1080	1085	
Tyr Leu Gln Thr Ser Met Lys Tyr Asn Ile Leu Pro Glu Lys Glu Asp			
1090	1095	1100	
Ser Pro Phe Ala Leu Lys Val Gln Thr Val Pro Gln Thr Cys Asp Gly			
1105	1110	1115	1120
His Lys Ala His Thr Ser Phe Gln Ile Ser Leu Thr Ile Ser Tyr Thr			
1125	1130	1135	
Gly Asn Arg Pro Ala Ser Asn Met Val Ile Val Asp Val Lys Met Val			
1140	1145	1150	
Ser Gly Phe Ile Pro Leu Lys Pro Thr Val Lys Met Leu Glu Arg Ser			
1155	1160	1165	
Ser Ser Val Ser Arg Thr Glu Val Ser Asn Asn His Val Leu Ile Tyr			
1170	1175	1180	
Val Glu Gln Val Thr Asn Gln Thr Leu Ser Phe Ser Phe Met Val Leu			
1185	1190	1195	1200
Gln Asp Ile Pro Val Gly Asp Leu Lys Pro Ala Ile Val Lys Val Tyr			
1205	1210	1215	
Asp Tyr Tyr Glu Thr Asp Glu Ser Val Val Ala Glu Tyr Ile Ala Pro			
1220	1225	1230	
Cys Ser Thr Asp Thr Glu His Gly Asn Val			
1235	1240		

<210> 111
<211> 1495
<212> PRT
<213> Mus musculus

<400> 111

Met	Arg	Arg	Asn	Gln	Leu	Pro	Thr	Pro	Ala	Phe	Leu	Leu	Leu	Phe	Leu
1				5				10						15	
Leu	Leu	Pro	Arg	Asp	Ala	Thr	Thr	Ala	Thr	Ala	Lys	Pro	Gln	Tyr	Val
		20					25				30				
Val	Leu	Val	Pro	Ser	Glu	Val	Tyr	Gln	Glu	Ser	Leu	Lys	Arg	Pro	Cys
		35				40					45				
Val	Ser	Leu	Asn	His	Val	Asn	Glu	Thr	Val	Met	Leu	Ser	Leu	Thr	Leu
	50				55				60						
Glu	Tyr	Ala	Met	Gln	Gln	Thr	Lys	Leu	Leu	Thr	Asp	Gln	Ala	Val	Asp
	65				70			75			80				
Lys	Asp	Ser	Phe	Tyr	Cys	Ser	Pro	Phe	Thr	Ile	Ser	Gly	Ser	Pro	Leu
	85					90				95					
Pro	Tyr	Thr	Phe	Ile	Thr	Val	Glu	Ile	Lys	Gly	Pro	Thr	Gln	Arg	Phe
	100					105			110						
Ile	Lys	Lys	Ser	Ile	Gln	Ile	Ile	Lys	Ala	Glu	Ser	Pro	Val	Phe	
	115					120			125						
Val	Gln	Thr	Asp	Lys	Pro	Ile	Tyr	Lys	Pro	Gly	Gln	Ile	Val	Lys	Phe
	130				135			140							
Arg	Val	Val	Ser	Val	Asp	Ile	Ser	Phe	Arg	Pro	Leu	Asn	Glu	Thr	Phe
	145				150				155			160			
Pro	Val	Val	Tyr	Ile	Glu	Thr	Pro	Lys	Arg	Asn	Arg	Ile	Phe	Gln	Trp
	165					170			175						
Gln	Asn	Ile	His	Leu	Ala	Gly	Gly	Leu	His	Gln	Leu	Ser	Phe	Pro	Leu
	180				185				190						
Ser	Val	Glu	Pro	Ala	Leu	Gly	Ile	Tyr	Lys	Val	Val	Val	Gln	Lys	Asp
	195				200				205						
Ser	Gly	Lys	Ile	Glu	His	Ser	Phe	Glu	Val	Lys	Glu	Tyr	Val	Leu	
	210				215				220						
Pro	Lys	Phe	Glu	Val	Ile	Ile	Lys	Met	Gln	Lys	Thr	Met	Ala	Phe	Leu
	225				230			235			240				
Glu	Glu	Glu	Leu	Pro	Ile	Thr	Ala	Cys	Gly	Val	Tyr	Thr	Tyr	Gly	Lys
	245					250			255						
Pro	Val	Pro	Gly	Leu	Val	Thr	Leu	Arg	Val	Cys	Arg	Lys	Tyr	Ser	Arg
	260					265			270						

Tyr Arg Ser Thr Cys His Asn Gln Asn Ser Met Ser Ile Cys Ala Glu
 275 280 285
 Phe Ser Gln Gln Ala Asp Asp Lys Gly Cys Phe Ser Gln Val Val Lys
 290 295 300
 Thr Lys Val Phe Gln Leu Ser Gln Lys Gly His Asp Met Lys Ile Glu
 305 310 315 320
 Val Glu Ala Lys Ile Lys Glu Glu Gly Thr Gly Ile Glu Leu Thr Gly
 325 330 335
 Ile Gly Ser Cys Glu Ile Ala Asn Ala Leu Ser Lys Leu Lys Phe Thr
 340 345 350
 Lys Val Asn Thr Asn Tyr Arg Pro Gly Leu Pro Phe Ser Gly Gln Val
 355 360 365
 Leu Leu Val Asp Glu Lys Gly Lys Pro Ile Pro Asn Lys Asn Ile Thr
 370 375 380
 Ser Val Val Ser Pro Leu Gly Tyr Leu Ser Ile Phe Thr Thr Asp Glu
 385 390 395 400
 His Gly Leu Ala Asn Ile Ser Ile Asp Thr Ser Asn Phe Thr Ala Pro
 405 410 415
 Phe Leu Arg Val Val Val Thr Tyr Lys Gln Asn His Val Cys Tyr Asp
 420 425 430
 Asn Trp Trp Leu Asp Glu Phe His Thr Gln Ala Asp His Ser Ala Thr
 435 440 445
 Leu Val Phe Ser Pro Ser Gln Ser Tyr Ile Gln Leu Glu Leu Val Phe
 450 455 460
 Gly Thr Leu Ala Cys Gly Gln Thr Gln Glu Ile Arg Ile His Tyr Leu
 465 470 475 480
 Leu Asn Glu Asp Ile Met Lys Asn Glu Lys Thr Leu Thr Phe Tyr Tyr
 485 490 495
 Leu Ile Lys Ala Arg Gly Ser Ile Gly Asn Leu Gly Ser His Val Leu
 500 505 510
 Ser Leu Glu Gln Gly Asn Met Lys Gly Val Phe Ser Leu Pro Ile Gln
 515 520 525
 Val Glu Pro Gly Met Ala Pro Glu Ala Gln Leu Leu Ile Tyr Ala Ile
 530 535 540
 Leu Pro Asn Glu Glu Leu Val Ala Asp Ala Gln Asn Phe Glu Ile Glu
 545 550 555 560
 Lys Cys Phe Ala Asn Lys Val Asn Leu Ser Phe Pro Ser Ala Gln Ser
 565 570 575

Leu Pro Ala Ser Asp Thr His Leu Lys Val Lys Ala Ala Pro Leu Ser
 580 585 590
 Leu Cys Ala Leu Thr Ala Val Asp Gln Ser Val Leu Leu Leu Lys Pro
 595 600 605
 Glu Ala Lys Leu Ser Pro Gln Ser Ile Tyr Asn Leu Leu Pro Gly Lys
 610 615 620
 Thr Val Gln Gly Ala Phe Phe Gly Val Pro Val Tyr Lys Asp His Glu
 625 630 635 640
 Asn Cys Ile Ser Gly Glu Asp Ile Thr His Asn Gly Ile Val Tyr Thr
 645 650 655
 Pro Lys His Ser Leu Gly Asp Asn Asp Ala His Ser Ile Phe Gln Ser
 660 665 670
 Val Gly Ile Asn Ile Phe Thr Asn Ser Lys Ile His Lys Pro Arg Phe
 675 680 685
 Cys Gln Glu Phe Gln His Tyr Pro Ala Met Gly Gly Val Ala Pro Gln
 690 695 700
 Ala Leu Ala Val Ala Ala Ser Gly Pro Gly Ser Ser Phe Arg Ala Met
 705 710 715 720
 Gly Val Pro Met Met Gly Leu Asp Tyr Ser Asp Glu Ile Asn Gln Val
 725 730 735
 Val Glu Val Arg Glu Thr Val Arg Lys Tyr Phe Pro Glu Thr Trp Ile
 740 745 750
 Trp Asp Leu Val Pro Leu Asp Val Ser Gly Asp Gly Glu Leu Ala Val
 755 760 765
 Lys Val Pro Asp Thr Ile Thr Glu Trp Lys Ala Ser Ala Phe Cys Leu
 770 775 780
 Ser Gly Thr Thr Gly Leu Gly Ser Ser Ser Thr Ile Ser Leu Gln Ala
 785 790 795 800
 Phe Gln Pro Phe Phe Leu Glu Leu Thr Leu Pro Tyr Ser Val Val Arg
 805 810 815
 Gly Glu Ala Phe Thr Leu Lys Ala Thr Val Leu Asn Tyr Met Ser His
 820 825 830
 Cys Ile Gln Ile Arg Val Asp Leu Glu Ile Ser Pro Asp Phe Leu Ala
 835 840 845
 Val Pro Val Gly Gly His Glu Asn Ser His Cys Ile Cys Gly Asn Glu
 850 855 860
 Arg Lys Thr Val Ser Trp Ala Val Thr Pro Lys Ser Leu Gly Glu Val
 865 870 875 880

Asn Phe Thr Arg Thr Ala Glu Ala Leu Glu Ser Gln Glu Leu Cys Gly
 885 890 895
 Asn Lys Leu Thr Glu Val Pro Ala Leu Val His Lys Asp Thr Val Val
 900 905 910
 Lys Ser Val Ile Val Glu Pro Glu Gly Ile Glu Lys Glu Gln Thr Tyr
 915 920 925
 Asn Thr Leu Leu Cys Pro Gln Asp Thr Glu Leu Gln Asp Asn Ser Ser
 930 935 940
 Leu Glu Leu Pro Pro Asn Val Val Glu Gly Ser Ala Arg Ala Thr His
 945 950 955 960
 Ser Val Leu Gly Asp Ile Leu Gly Ser Ala Met Gln Asn Leu Gln Asn
 965 970 975
 Leu Leu Gln Met Pro Tyr Gly Cys Gly Glu Gln Asn Met Val Leu Phe
 980 985 990
 Val Pro Asn Ile Tyr Val Leu Asn Tyr Leu Asn Glu Thr Gln Gln Leu
 995 1000 1005
 Thr Glu Ala Ile Lys Ser Lys Ala Ile Asn Tyr Leu Ile Ser Gly Tyr
 1010 1015 1020
 Gln Arg Gln Leu Asn Tyr Gln His Ser Asp Gly Ser Tyr Ser Thr Phe
 1025 1030 1035 1040
 Gly Asn His Gly Gly Asn Thr Pro Gly Asn Thr Trp Leu Thr Ala
 1045 1050 1055
 Phe Val Leu Lys Ala Phe Ala Gln Ala Gln Ser His Ile Phe Ile Glu
 1060 1065 1070
 Lys Thr His Ile Thr Asn Ala Phe Asn Trp Leu Ser Met Lys Gln Lys
 1075 1080 1085
 Glu Asn Gly Cys Phe Gln Gln Ser Gly Tyr Leu Leu Asn Asn Ala Met
 1090 1095 1100
 Lys Gly Gly Val Asp Asp Glu Val Thr Leu Ser Ala Tyr Ile Thr Ile
 1105 1110 1115 1120
 Ala Leu Leu Glu Met Pro Leu Pro Val Thr His Ser Ala Val Arg Asn
 1125 1130 1135
 Ala Leu Phe Cys Leu Glu Thr Ala Trp Ala Ser Ile Ser Gln Ser Gln
 1140 1145 1150
 Glu Ser His Val Tyr Thr Lys Ala Leu Leu Ala Tyr Ala Phe Ala Leu
 1155 1160 1165
 Ala Gly Asn Lys Ala Lys Arg Ser Glu Leu Leu Glu Ser Leu Asn Lys
 1170 1175 1180

Asp Ala Val Lys Glu Glu Asp Ser Leu His Trp Gln Arg Pro Gly Asp
 1185 1190 1195 1200
 Val Gln Lys Val Lys Ala Leu Ser Phe Tyr Gln Pro Arg Ala Pro Ser
 1205 1210 1215
 Ala Glu Val Glu Met Thr Ala Tyr Val Leu Leu Ala Tyr Leu Thr Ser
 1220 1225 1230
 Glu Ser Ser Arg Pro Thr Arg Asp Leu Ser Ser Ser Asp Leu Ser Thr
 1235 1240 1245
 Ala Ser Lys Ile Val Lys Trp Ile Ser Lys Gln Gln Asn Ser Asp Gly
 1250 1255 1260
 Gly Leu Leu Leu Thr Gln Asp Thr Val Val Ala Leu Gln Ala Leu Ser
 1265 1270 1275 1280
 Lys Tyr Gly Ser Ala Thr Phe Thr Arg Ser Gln Lys Glu Val Leu Val
 1285 1290 1295
 Thr Ser Arg Ser Ser Gly Thr Phe Ser Lys Thr Phe His Val Asn Ser
 1300 1305 1310
 Gly Asn Arg Leu Leu Gln Glu Val Arg Leu Pro Asp Leu Pro Gly
 1315 1320 1325
 Asn Tyr Val Thr Lys Gly Ser Gly Ser Gly Cys Val Tyr Leu Gln Thr
 1330 1335 1340
 Ser Leu Lys Tyr Asn Ile Leu Pro Val Ala Asp Gly Lys Ala Pro Phe
 1345 1350 1355 1360
 Ala Leu Gln Val Asn Thr Leu Pro Leu Asn Phe Asp Lys Ala Glu Asp
 1365 1370 1375
 His Arg Thr Phe Gln Ile Arg Ile Asn Val Ser Tyr Thr Gly Glu Arg
 1380 1385 1390
 Pro Ser Ser Asn Met Val Ile Val Asp Val Lys Met Val Ser Gly Phe
 1395 1400 1405
 Ile Pro Met Lys Pro Ser Val Lys Arg Leu Gln Asp Gln Pro Asn Ile
 1410 1415 1420
 Gln Arg Thr Glu Val Asn Thr Asn His Val Leu Ile Tyr Ile Glu Lys
 1425 1430 1435 1440
 Leu Thr Asn Gln Thr Leu Gly Phe Ser Phe Ala Val Glu Gln Asp Ile
 1445 1450 1455
 Pro Val Lys Asn Leu Lys Pro Ala Pro Ile Lys Val Tyr Asp Tyr Tyr
 1460 1465 1470
 Glu Thr Asp Glu Phe Thr Val Glu Glu Tyr Ser Ala Pro Phe Ser Asp
 1475 1480 1485

Gly Ser Glu Gln Gly Asn Ala
1490 1495

<210> 112
<211> 1473
<212> PRT
<213> Gallus gallus

<400> 112
Met His Cys Phe Leu Gly Arg Glu Ile Leu Ser Phe Phe Cys Leu Thr
1 5 10 15
Val Arg Lys Met Trp Leu Lys Phe Ile Leu Ala Ile Leu Leu His
20 25 30
Ala Ala Ala Gly Lys Glu Pro Glu Pro Gln Tyr Val Leu Met Val Pro
35 40 45
Ala Val Leu Gln Ser Asp Ser Pro Ser Gln Val Cys Leu Gln Phe Phe
50 55 60
Asn Leu Asn Gln Thr Ile Ser Val Arg Val Val Leu Glu Tyr Asp Thr
65 70 75 80
Ile Asn Thr Thr Ile Phe Glu Lys Asn Thr Thr Ser Asn Gly Leu
85 90 95
Gln Cys Leu Asn Phe Met Ile Pro Pro Val Thr Ser Val Ser Leu Ala
100 105 110
Phe Ile Ser Phe Thr Ala Lys Gly Thr Thr Phe Asp Leu Lys Glu Arg
115 120 125
Arg Ser Val Met Ile Trp Asn Met Glu Ser Phe Val Phe Val Gln Thr
130 135 140
Asp Lys Pro Ile Tyr Lys Pro Gly Gln Ser Val Met Phe Arg Val Val
145 150 155 160
Ala Leu Asp Phe Asn Phe Lys Pro Val Gln Glu Met Tyr Pro Leu Ile
165 170 175
Ala Val Gln Asp Pro Gln Asn Asn Arg Ile Phe Gln Trp Gln Asn Val
180 185 190
Thr Ser Glu Ile Asn Ile Val Gln Ile Glu Phe Pro Leu Thr Glu Glu
195 200 205
Pro Ile Leu Gly Asn Tyr Lys Ile Ile Val Thr Lys Lys Ser Gly Glu
210 215 220
Arg Thr Ser His Ser Phe Leu Val Glu Glu Tyr Val Leu Pro Lys Phe
225 230 235 240
Asp Val Thr Val Thr Ala Pro Gly Ser Leu Thr Val Met Asp Ser Glu
245 250 255

Leu Thr Val Lys Ile Cys Ala Val Tyr Thr Tyr Gly Gln Pro Val Glu
 260 265 270

 Gly Lys Val Gln Leu Ser Val Cys Arg Asp Phe Asp Ser Tyr Gly Arg
 275 280 285

 Cys Lys Lys Ser Pro Val Cys Gln Ser Phe Thr Lys Asp Leu Asp Thr
 290 295 300

 Asp Gly Cys Leu Ser His Ile Leu Ser Ser Lys Val Phe Glu Leu Asn
 305 310 315 320

 Arg Ile Gly Tyr Lys Arg Asn Leu Asp Val Lys Ala Ile Val Thr Glu
 325 330 335

 Lys Glu Gln Val Cys Asn Leu Thr Ala Thr Gln Ser Ile Ser Ile Thr
 340 345 350

 Gln Val Met Ser Ser Leu Gln Phe Glu Asn Val Asp His His Tyr Arg
 355 360 365

 Arg Gly Ile Pro Tyr Phe Gly Gln Ile Lys Leu Val Asp Lys Asp Asn
 370 375 380

 Ser Pro Ile Ser Asn Lys Val Ile Gln Leu Phe Val Asn Asn Lys Asn
 385 390 395 400

 Thr His Asn Phe Thr Thr Asp Ile Asn Gly Ile Ala Pro Phe Ser Ile
 405 410 415

 Asp Thr Ser Lys Ile Phe Asp Pro Glu Leu Ser Leu Lys Ala Leu Tyr
 420 425 430

 Lys Thr Ser Asp Gln Cys His Ser Glu Gly Trp Ile Glu Pro Ser Tyr
 435 440 445

 Pro Asp Ala Ser Leu Ser Val Gln Arg Leu Tyr Ser Trp Thr Ser Ser
 450 455 460

 Phe Val Arg Ile Glu Pro Leu Trp Lys Asp Met Ser Cys Gly Gln Lys
 465 470 475 480

 Arg Met Ile Thr Val Tyr Tyr Ile Leu Asn Thr Glu Gly Tyr Glu His
 485 490 495

 Ile Asn Ile Val Asn Phe Tyr Tyr Val Gly Met Ala Lys Gly Lys Ile
 500 505 510

 Val Leu Thr Gly Glu Ile Lys Val Asn Ile Gln Ala Asp Gln Asn Gly
 515 520 525

 Thr Phe Met Ile Pro Leu Val Val Asn Glu Lys Met Ala Pro Ala Leu
 530 535 540

 Arg Leu Leu Val Tyr Met Leu His Pro Ala Lys Glu Leu Val Ala Asp
 545 550 555 560

Ser Val Arg Phe Ser Ile Glu Lys Cys Phe Lys Asn Lys Val Gln Leu
565 570 575

Gln Phe Ser Glu Lys Gln Met Leu Thr Thr Ser Asn Val Ser Leu Val
580 585 590

Ile Glu Ala Ala Ala Asn Ser Phe Cys Ala Val Arg Ala Val Asp Lys
595 600 605

Ser Met Leu Leu Leu Lys Ser Glu Thr Glu Leu Ser Ala Glu Thr Ile
610 615 620

Tyr Asn Leu His Pro Ile Gln Asp Leu Gln Gly Tyr Ile Phe Asn Gly
625 630 635 640

Leu Asn Leu Glu Asp Asp Pro Gln Asp Pro Cys Val Ser Ser Asp Asp
645 650 655

Ile Phe His Lys Gly Leu Tyr Tyr Arg Pro Leu Thr Ser Gly Leu Gly
660 665 670

Pro Asp Val Tyr Gln Phe Leu Arg Asp Met Gly Met Lys Phe Phe Thr
675 680 685

Asn Ser Lys Ile Arg Gln Pro Thr Val Cys Thr Arg Glu Thr Val Arg
690 695 700

Pro Pro Ser Tyr Phe Leu Asn Ala Gly Phe Thr Ala Ser Thr His His
705 710 715 720

Val Lys Leu Ser Ala Glu Val Ala Arg Glu Glu Arg Gly Lys Arg His
725 730 735

Ile Leu Glu Thr Ile Arg Glu Phe Phe Pro Glu Thr Trp Ile Trp Asp
740 745 750

Ile Ile Leu Ile Asn Ser Thr Gly Lys Ala Ser Val Ser Tyr Thr Ile
755 760 765

Pro Asp Thr Ile Thr Glu Trp Lys Ala Ser Ala Phe Cys Val Glu Glu
770 775 780

Leu Ala Gly Phe Gly Met Ser Val Pro Ala Thr Leu Thr Ala Phe Gln
785 790 795 800

Pro Phe Phe Val Asp Leu Thr Leu Pro Tyr Ser Ile Ile His Gly Glu
805 810 815

Asp Phe Leu Val Arg Ala Asn Val Phe Asn Tyr Leu Asn His Cys Ile
820 825 830

Lys Ile Asn Val Leu Leu Leu Glu Ser Leu Asp Tyr Gln Ala Lys Leu
835 840 845

Ile Ser Pro Glu Asp Asp Gly Cys Val Cys Ala Lys Ile Arg Lys Ser
850 855 860

Tyr Val Trp Asn Ile Phe Pro Lys Gly Thr Gly Asp Val Leu Phe Ser
 865 870 875 880
 Ile Thr Ala Glu Thr Asn Asp Asp Glu Ala Cys Glu Glu Ala Leu
 885 890 895
 Arg Asn Ile Arg Ile Asp Tyr Arg Asp Thr Gln Ile Arg Ala Leu Leu
 900 905 910
 Val Glu Pro Glu Gly Ile Arg Arg Glu Glu Thr Gln Asn Phe Leu Ile
 915 920 925
 Cys Met Lys Asp Asp Val Ile Ser Gln Asp Val Ala Ile Asp Leu Pro
 930 935 940
 Thr Asn Val Val Glu Gly Ser Pro Arg Pro Ser Phe Ser Val Val Gly
 945 950 955 960
 Asp Ile Met Gly Thr Ala Ile Gln Asn Val His Gln Leu Leu Gln Met
 965 970 975
 Pro Phe Gly Asn Gly Glu Gln Asn Met Val Leu Phe Ala Pro Asn Ile
 980 985 990
 Tyr Val Leu Asp Tyr Leu Asp Lys Thr Arg Gln Leu Ser Glu Asp Val
 995 1000 1005
 Lys Ser Lys Thr Ile Gly Tyr Leu Val Ser Gly Tyr Gln Lys Gln Leu
 1010 1015 1020
 Ser Tyr Lys His Pro Asp Gly Ser Tyr Ser Thr Phe Gly Ile Arg Asp
 1025 1030 1035 1040
 Lys Glu Gly Asn Thr Trp Leu Thr Ala Phe Val Tyr Lys Ser Phe Ala
 1045 1050 1055
 Glu Ala Ser Arg Phe Ile Tyr Ile Asp Asp Asn Val Gln Ala Gln Thr
 1060 1065 1070
 Leu Ile Trp Leu Ala Thr Lys Gln Lys Thr Asp Gly Cys Phe Gln Ser
 1075 1080 1085
 Thr Gly Ile Leu Val Asn Asn Ala Met Lys Gly Gly Val Glu Asn Glu
 1090 1095 1100
 Leu Ser Leu Ser Ala Tyr Ile Thr Ile Ala Leu Leu Glu Ala Gly His
 1105 1110 1115 1120
 Ser Met Ser His Thr Val Ile Arg Asn Ala Phe Tyr Cys Leu Glu Thr
 1125 1130 1135
 Ala Ser Glu Lys Asn Ile Thr Asp Ile Tyr Thr Gln Ala Leu Val Ala
 1140 1145 1150
 Tyr Ala Phe Cys Leu Ala Gly Lys Ala Glu Ile Cys Glu Ser Phe Leu
 1155 1160 1165

Arg Glu Leu Gln Lys Ser Ala Lys Glu Val Asp Gly Ser Lys Tyr Trp
 1170 1175 1180
 Glu Gln Asn Gln Arg Ser Ala Pro Glu Lys Ser His Leu Leu Asp His
 1185 1190 1195 1200
 Val Gln Ser Thr Asp Val Glu Ile Thr Ser Tyr Val Leu Leu Ala Leu
 1205 1210 1215
 Leu Tyr Lys Pro Asn Arg Ser Gln Glu Asp Leu Thr Lys Ala Ser Ala
 1220 1225 1230
 Ile Val Gln Trp Ile Ile Arg Gln Gln Asn Ser Tyr Gly Gly Phe Ala
 1235 1240 1245
 Ser Met Gln Asp Thr Val Val Ala Leu Gln Ala Leu Ala Ala Tyr Gly
 1250 1255 1260
 Ala Ala Thr Tyr Asn Ser Val Thr Gln Asn Val Ile Lys Ile Asn Ser
 1265 1270 1275 1280
 Lys Asn Thr Phe Glu Lys Val Phe Thr Val Asn Asn Glu Asn Arg Leu
 1285 1290 1295
 Leu Leu Gln Gln Thr Pro Leu Pro Gln Val Pro Gly Lys Tyr Ser Leu
 1300 1305 1310
 Thr Val Asn Gly Thr Gly Cys Val Leu Ile Gln Thr Ala Leu Arg Tyr
 1315 1320 1325
 Asn Ile His Leu Pro Glu Gly Ala Phe Gly Phe Ser Leu Ser Val Gln
 1330 1335 1340
 Thr Ser Asn Ala Ser Cys Pro Arg Asp Gln Pro Gly Lys Phe Asp Ile
 1345 1350 1355 1360
 Val Leu Ile Ser Ser Tyr Thr Gly Lys Arg Ser Ser Ser Asn Met Val
 1365 1370 1375
 Ile Ile Asp Val Lys Met Leu Ser Gly Phe Val Pro Val Lys Ser Ser
 1380 1385 1390
 Leu Asp Gln Leu Ile Asp Asp His Thr Val Met Gln Val Glu Tyr Lys
 1395 1400 1405
 Lys Asn His Val Leu Leu Tyr Leu Gly Asn Ile Leu Gln Lys Arg Arg
 1410 1415 1420
 Lys Glu Val Thr Phe Ser Val Glu Gln Asp Phe Val Val Thr His Pro
 1425 1430 1435 1440
 Lys Pro Ala Pro Val Gln Ile Tyr Asp Tyr Tyr Glu Thr Glu Glu Tyr
 1445 1450 1455
 Ala Val Ala Glu Tyr Met Ser Leu Cys Arg Gly Val Val Glu Glu Met
 1460 1465 1470

Gly

<210> 113

<211> 1450

<212> PRT

<213> Homo sapiens

<400> 113

Ser Val Ser Gly Lys Pro Gln Tyr Met Val Leu Val Pro Ser Leu Leu
1 5 10 15

His Thr Glu Thr Thr Glu Lys Gly Cys Val Leu Leu Ser Tyr Leu Asn
20 25 30

Glu Thr Val Thr Val Ser Ala Leu Glu Ser Val Arg Gly Asn Arg Ser
35 40 45

Leu Phe Thr Asp Leu Glu Ala Glu Asn Asp Val Leu His Cys Val Ala
50 55 60

Phe Ala Val Pro Lys Ser Ser Asn Glu Glu Val Met Phe Leu Thr
65 70 75 80

Val Gln Val Lys Gly Pro Thr Gln Glu Phe Lys Lys Arg Thr Thr Val
85 90 95

Met Val Lys Asn Glu Asp Ser Leu Val Phe Val Gln Thr Asp Lys Ser
100 105 110

Ile Tyr Lys Pro Gly Gln Thr Val Lys Phe Arg Val Val Ser Met Asp
115 120 125

Glu Asn Phe His Pro Leu Asn Glu Leu Ile Pro Leu Val Tyr Ile Gln
130 135 140

Asp Pro Lys Gly Asn Arg Ile Ala Gln Trp Gln Ser Phe Gln Leu Glu
145 150 155 160

Gly Gly Leu Lys Gln Phe Ser Phe Pro Leu Ser Ser Glu Pro Phe Gln
165 170 175

Gly Ser Tyr Lys Val Val Val Gln Lys Ser Gly Gly Arg Thr Glu
180 185 190

His Pro Phe Thr Val Glu Glu Phe Val Leu Pro Lys Phe Glu Val Gln
195 200 205

Val Thr Val Pro Lys Ile Ile Thr Ile Leu Glu Glu Met Asn Val
210 215 220

Ser Val Cys Gly Leu Tyr Thr Tyr Gly Lys Pro Val Pro Gly His Val
225 230 235 240

Thr Val Ser Ile Cys Arg Lys Tyr Ser Asp Ala Ser Asp Cys His Gly

245	250	255													
Glu	Asp	Ser	Gln	Ala	Phe	Cys	Glu	Lys	Phe	Ser	Gly	Gln	Leu	Asn	Ser
260							265						270		
His	Gly	Cys	Phe	Tyr	Gln	Gln	Val	Lys	Thr	Lys	Val	Phe	Gln	Leu	Lys
275							280						285		
Arg	Lys	Glu	Tyr	Glu	Met	Lys	Leu	His	Thr	Glu	Ala	Gln	Ile	Gln	Glu
290							295						300		
Glu	Gly	Thr	Val	Val	Glu	Leu	Thr	Gly	Arg	Gln	Ser	Ser	Glu	Ile	Thr
305							310						315		
Arg	Thr	Ile	Thr	Lys	Leu	Ser	Phe	Val	Lys	Val	Asp	Ser	His	Phe	Arg
													335		
Gln	Gly	Ile	Pro	Phe	Phe	Gly	Gln	Val	Arg	Leu	Val	Asp	Gly	Lys	Gly
													340		
340							345						350		
Val	Pro	Ile	Pro	Asn	Lys	Val	Ile	Phe	Ile	Arg	Gly	Asn	Glu	Ala	Asn
355							360						365		
Tyr	Tyr	Ser	Asn	Ala	Thr	Thr	Asp	Glu	His	Gly	Leu	Val	Gln	Phe	Ser
370							375						380		
Ile	Asn	Thr	Thr	Asn	Val	Met	Gly	Thr	Ser	Leu	Thr	Val	Arg	Val	Asn
385							390						395		
Tyr	Lys	Asp	Arg	Ser	Pro	Cys	Tyr	Gly	Tyr	Gln	Trp	Val	Ser	Glu	Glu
													400		
405							410						415		
His	Glu	Glu	Ala	His	His	Thr	Ala	Tyr	Leu	Val	Phe	Ser	Pro	Ser	Lys
													420		
													425		
Ser	Phe	Val	His	Leu	Glu	Pro	Met	Ser	His	Glu	Leu	Pro	Cys	Gly	His
													430		
													435		
													440		
													445		
Thr	Gln	Thr	Val	Gln	Ala	His	Tyr	Ile	Leu	Asn	Gly	Gly	Thr	Leu	Leu
450													455		
													460		
Gly	Leu	Lys	Lys	Leu	Ser	Phe	Tyr	Tyr	Leu	Ile	Met	Ala	Lys	Gly	Gly
465													470		
													475		
													480		
Ile	Val	Arg	Thr	Gly	Thr	His	Gly	Leu	Leu	Val	Lys	Gln	Glu	Asp	Met
													485		
													490		
													495		
Lys	Gly	His	Phe	Ser	Ile	Ser	Ile	Pro	Val	Lys	Ser	Asp	Ile	Ala	Pro
													500		
													505		
Val	Ala	Arg	Leu	Leu	Ile	Tyr	Ala	Val	Leu	Pro	Thr	Gly	Asp	Val	Ile
													515		
													520		
													525		
Gly	Asp	Ser	Ala	Lys	Tyr	Asp	Val	Glu	Asn	Glu	Leu	Ala	Asn	Lys	Val
													530		
													535		
													540		
Asp	Leu	Ser	Phe	Ser	Pro	Ser	Gln	Ser	Leu	Pro	Ala	Ser	His	Ala	His

545	550	555	560
Leu Arg Val Thr Ala Ala Pro Gln Ser Val Cys Ala Leu Arg Ala Val			
565	570	575	
Asp Gln Ser Val Leu Leu Met Lys Pro Asp Ala Glu Leu Ser Ala Ser			
580	585	590	
Ser Val Tyr Asn Leu Leu Pro Glu Lys Asp Leu Thr Gly Phe Pro Gly			
595	600	605	
Pro Leu Asn Asp Gln Asp Asp Glu Asp Cys Ile Asn Arg His Asn Val			
610	615	620	
Tyr Ile Asn Gly Ile Thr Tyr Thr Pro Val Ser Ser Thr Asn Glu Lys			
625	630	635	640
Asp Met Tyr Ser Phe Leu Glu Asp Met Gly Leu Lys Ala Phe Thr Asn			
645	650	655	
Ser Lys Ile Arg Lys Pro Lys Met Cys Pro Gln Leu Gln Gln Tyr Glu			
660	665	670	
Met His Gly Pro Glu Gly Leu Arg Val Gly Phe Tyr Glu Ser Asp Val			
675	680	685	
Met Gly Arg Gly His Ala Arg Leu Val His Val Glu Glu Pro His Thr			
690	695	700	
Glu Thr Val Arg Lys Tyr Phe Pro Glu Thr Trp Ile Trp Asp Leu Val			
705	710	715	720
Val Val Asn Ser Ala Gly Val Ala Glu Val Gly Val Thr Val Pro Asp			
725	730	735	
Thr Ile Thr Glu Trp Lys Ala Gly Ala Phe Cys Leu Ser Glu Asp Ala			
740	745	750	
Gly Leu Gly Ile Ser Ser Thr Ala Ser Leu Arg Ala Phe Gln Pro Phe			
755	760	765	
Phe Val Glu Leu Thr Met Pro Tyr Ser Val Ile Arg Gly Glu Ala Phe			
770	775	780	
Thr Leu Lys Ala Thr Val Leu Asn Tyr Leu Pro Lys Cys Ile Arg Val			
785	790	795	800
Ser Val Gln Leu Glu Ala Ser Pro Ala Phe Leu Ala Val Pro Val Glu			
805	810	815	
Lys Glu Gln Ala Pro His Cys Ile Cys Ala Asn Gly Arg Gln Thr Val			
820	825	830	
Ser Trp Ala Val Thr Pro Lys Ser Leu Gly Asn Val Asn Phe Thr Val			
835	840	845	
Ser Ala Glu Ala Leu Glu Ser Gln Glu Leu Cys Gly Thr Glu Val Pro			

850	855	860
Ser Val Pro Glu His Gly Arg Lys Asp Thr Val Ile Lys Pro Leu Leu		
865	870	875
Val Glu Pro Glu Gly Leu Glu Lys Glu Thr Thr Phe Asn Ser Leu Leu		
885	890	895
Cys Pro Ser Gly Gly Glu Val Ser Glu Glu Leu Ser Leu Lys Leu Pro		
900	905	910
Pro Asn Val Val Glu Glu Ser Ala Arg Ala Ser Val Ser Val Leu Gly		
915	920	925
Asp Ile Leu Gly Ser Ala Met Gln Asn Thr Gln Asn Leu Leu Gln Met		
930	935	940
Pro Tyr Gly Cys Gly Glu Glx Asn Met Val Leu Phe Ala Pro Asn Ile		
945	950	955
960		
Tyr Val Leu Asp Tyr Leu Asn Glu Thr Gln Gln Leu Thr Pro Glu Ile		
965	970	975
Lys Ser Lys Ala Ile Gly Tyr Leu Asn Thr Gly Tyr Gln Arg Gln Leu		
980	985	990
Asn Tyr Lys His Tyr Asp Gly Ser Tyr Ser Thr Phe Gly Glu Arg Tyr		
995	1000	1005
Gly Arg Asn Gln Gly Asn Thr Trp Leu Thr Ala Phe Val Leu Lys Thr		
1010	1015	1020
Phe Ala Gln Ala Arg Ala Tyr Ile Phe Ile Asp Glu Ala His Ile Thr		
1025	1030	1035
1040		
Gln Ala Leu Ile Trp Leu Ser Gln Arg Gln Lys Asp Asn Gly Cys Phe		
1045	1050	1055
Arg Ser Ser Gly Ser Leu Leu Asn Asn Ala Ile Lys Gly Gly Val Glu		
1060	1065	1070
Asp Glu Val Thr Leu Ser Ala Tyr Ile Lys Ile Ala Leu Leu Glu Ile		
1075	1080	1085
Pro Leu Thr Val Thr His Pro Val Val Arg Asn Ala Leu Phe Cys Leu		
1090	1095	1100
Glu Ser Ala Trp Lys Thr Ala Glu Glu Gly Asp His Gly Ser His Val		
1105	1110	1115
1120		
Tyr Thr Lys Ala Leu Leu Ala Tyr Ala Phe Ala Leu Ala Gly Asn Gln		
1125	1130	1135
Asp Lys Arg Lys Glu Val Leu Lys Ser Leu Asn Glu Glu Ala Val Lys		
1140	1145	1150
Lys Asp Asn Ser Val His Trp Glu Arg Pro Gln Lys Pro Lys Ala Pro		

1155	1160	1165	
Val Gly His Phe Tyr Glu Pro Gln Ala Pro Ser Ala Glu Val Glu Met			
1170	1175	1180	
Thr Ser Tyr Val Leu Leu Ala Tyr Leu Thr Ala Gln Pro Ala Pro Thr			
1185	1190	1195	1200
Ser Glu Asp Leu Thr Ser Ala Thr Asn Ile Val Lys Trp Ile Thr Lys			
1205	1210	1215	
Gln Gln Asn Ala Gln Gly Gly Phe Ser Ser Thr Gln Asp Lys Val Val			
1220	1225	1230	
Ala Leu His Ala Leu Ser Lys Tyr Gly Ala Ala Thr Phe Thr Arg Thr			
1235	1240	1245	
Gly Lys Ala Ala Gln Val Thr Ile Gln Ser Ser Gly Thr Phe Ser Ser			
1250	1255	1260	
Lys Phe Gln Val Asp Asn Asn Asn Arg Leu Leu Leu Gln Gln Val Ser			
1265	1270	1275	1280
Leu Pro Glu Leu Pro Gly Glu Tyr Ser Met Lys Val Thr Gly Glu Gly			
1285	1290	1295	
Cys Val Tyr Leu Gln Thr Ser Leu Lys Tyr Asn Ile Leu Pro Glu Lys			
1300	1305	1310	
Glu Glu Phe Pro Phe Ala Leu Gly Val Gln Thr Leu Pro Gln Thr Cys			
1315	1320	1325	
Asp Glu Pro Lys Ala His Thr Ser Phe Gln Ile Ser Leu Ser Val Ser			
1330	1335	1340	
Tyr Thr Gly Ser Arg Ser Ala Ser Asn Met Ala Ile Val Asp Val Lys			
1345	1350	1355	1360
Met Val Ser Gly Phe Ile Pro Leu Lys Pro Thr Val Lys Met Leu Glu			
1365	1370	1375	
Arg Ser Asn His Val Ser Arg Thr Glu Val Ser Ser Asn His Val Leu			
1380	1385	1390	
Ile Tyr Leu Asp Lys Val Ser Asn Gln Thr Leu Ser Leu Phe Phe Thr			
1395	1400	1405	
Val Leu Gln Asp Val Pro Val Arg Asp Leu Lys Pro Ala Ile Val Lys			
1410	1415	1420	
Val Tyr Asp Tyr Tyr Glu Thr Asp Glu Phe Ala Ile Ala Glu Tyr Asn			
1425	1430	1435	1440
Ala Pro Cys Ser Lys Asp Leu Gly Asn Ala			
1445	1450		

<210> 114
<211> 1476
<212> PRT
<213> Mus musculus

<400> 114
Met Trp Lys Ser Arg Arg Ala Gln Leu Cys Leu Phe Ser Val Leu Leu
1 5 10 15
Ala Phe Leu His Ser Ala Ser Leu Leu Asn Gly Asp Ser Lys Tyr Met
20 25 30
Val Leu Val Pro Ser Gln Leu Tyr Thr Glu Thr Pro Glu Lys Ile Cys
35 40 45
Leu His Leu Tyr Gln Leu Asn Glu Thr Val Thr Val Thr Ala Ser Leu
50 55 60
Val Ser Gln Ser Gly Arg Lys Asn Leu Phe Asp Glu Leu Val Leu Asp
65 70 75 80
Lys Asp Leu Phe Gln Cys Val Ser Phe Ile Ile Pro Arg Leu Ser Ser
85 90 95
Ser Asp Glu Glu Asp Phe Leu Tyr Val Asp Ile Lys Gly Pro Thr His
100 105 110
Glu Phe Ser Lys Arg Lys Ala Val Leu Val Lys Asn Lys Glu Ser Val
115 120 125
Val Phe Val Gln Thr Asp Lys Pro Val Tyr Lys Pro Gly Gln Ser Val
130 135 140
Lys Phe Arg Val Val Ser Met Asp Lys Met Leu Arg Pro Leu Asn Glu
145 150 155 160
Leu Leu Pro Leu Ala Tyr Ile Glu Asp Pro Lys Lys Asn Arg Ile Met
165 170 175
Gln Trp Arg Asp Ile Lys Thr Glu Asn Gly Leu Lys Gln Met Ser Phe
180 185 190
Ser Leu Ala Ala Glu Pro Ile Gln Gly Pro Tyr Lys Ile Val Val His
195 200 205
Lys Glu Ser Gly Glu Lys Glu Glu His Ser Phe Thr Val Met Glu Phe
210 215 220
Val Leu Pro Arg Phe Asn Val Asp Leu Lys Val Pro Asn Ala Met Ser
225 230 235 240
Val Asn Asp Glu Val Leu Ser Val Thr Ala Cys Gly Lys Tyr Thr Tyr
245 250 255
Gly Lys Pro Val Pro Gly His Val Lys Ile Asn Val Cys Arg Glu Thr
260 265 270

Glu Thr Gly Cys Arg Glu Val Asn Ser Gln Leu Asp Asn Asn Gly Cys
 275 280 285
 Ser Thr Gln Glu Val Asn Ile Thr Glu Leu Gln Ser Lys Lys Arg Asn
 290 295 300
 Tyr Glu Val Gln Leu Phe His Val Asn Ala Thr Val Thr Glu Glu Gly
 305 310 315 320
 Thr Gly Leu Glu Phe Ser Arg Ser Gly Thr Thr Lys Ile Glu Arg Ile
 325 330 335
 Thr Asn Lys Leu Ile Phe Leu Lys Ala Asp Ser His Phe Arg His Gly
 340 345 350
 Ile Pro Phe Phe Val Lys Val Arg Leu Val Asp Ile Lys Gly Asp Pro
 355 360 365
 Ile Pro Asn Glu Lys Val Phe Ile Lys Ala Gln Glu Leu Ser Tyr Thr
 370 375 380
 Ser Ala Thr Thr Thr Asp Gln His Gly Leu Ala Glu Phe Ser Ile Asp
 385 390 395 400
 Thr Thr Cys Ile Ser Gly Ser Ser Leu His Ile Lys Val Asn His Lys
 405 410 415
 Glu Glu Asp Ser Cys Ser Tyr Phe Tyr Cys Met Glu Glu Arg His Ala
 420 425 430
 Ser Ala Lys His Val Ala Tyr Ala Val Tyr Ser Leu Ser Lys Ser Tyr
 435 440 445
 Ile Tyr Leu Asp Thr Glu Thr Ser Ser Ile Leu Pro Cys Asn Gln Ile
 450 455 460
 His Thr Val Gln Ala His Phe Ile Leu Lys Gly Asp Leu Gly Val Leu
 465 470 475 480
 Lys Glu Leu Ile Phe Tyr Tyr Leu Val Met Ala Gln Gly Ser Ile Ile
 485 490 495
 Gln Thr Gly Asn His Thr His Gln Val Glu Pro Gly Glu Ala Pro Val
 500 505 510
 Lys Gly Lys Phe Ala Leu Glu Ile Pro Val Glu Phe Ser Met Val Pro
 515 520 525
 Met Ala Lys Met Leu Ile Tyr Thr Ile Leu Pro Asp Gly Glu Val Ile
 530 535 540
 Ala Asp Ser Val Asn Phe Glu Ile Glu Lys Cys Leu Arg Asn Lys Val
 545 550 555 560
 Asp Leu Arg Phe Ser Thr Ser Gln Ser Leu Pro Ala Ser Gln Thr Arg
 565 570 575

Leu Gln Val Thr Ala Ser Pro Gln Ser Leu Cys Gly Leu Arg Ala Val
 580 585 590
 Asp Gln Ser Val Leu Leu Leu Lys Pro Glu Ser Glu Leu Ser Pro Ser
 595 600 605
 Trp Ile Tyr Asn Leu Pro Gly Met Gln Gln Asn Lys Phe Val Pro Ser
 610 615 620
 Ser Arg Leu Ser Glu Asp Gln Glu Asp Cys Ile Leu Tyr Ser Ser Trp
 625 630 635 640
 Leu Ala Glu Lys His Thr Asn Leu Val Pro His Gly Thr Glu Lys Asp
 645 650 655
 Val Tyr Arg Tyr Val Glu Asp Met Gly Leu Thr Ala Phe Thr Asn Leu
 660 665 670
 Met Ile Lys Leu Pro Ile Ile Cys Phe Asp Tyr Gly Met Val Pro Ile
 675 680 685
 Ser Ala Pro Arg Val Glu Phe Asp Leu Ala Phe Thr Pro Glu Ile Ser
 690 695 700
 Trp Ser Leu Arg Thr Thr Leu Ser Lys Arg Pro Glu Glu Pro Pro Arg
 705 710 715 720
 Lys Asp Pro Ser Ser Asn Asp Pro Leu Thr Glu Thr Ile Arg Lys Tyr
 725 730 735
 Phe Pro Glu Thr Trp Val Trp Asp Ile Val Thr Val Asn Ser Thr Gly
 740 745 750
 Leu Ala Glu Val Glu Met Thr Val Pro Asp Thr Ile Thr Glu Trp Lys
 755 760 765
 Ala Gly Ala Leu Cys Leu Ser Asn Asp Thr Gly Leu Gly Leu Ser Ser
 770 775 780
 Val Val Pro Leu Gln Ala Phe Lys Pro Phe Phe Val Glu Val Ser Leu
 785 790 795 800
 Pro Tyr Ser Val Val Arg Gly Glu Ala Phe Met Leu Lys Ala Thr Val
 805 810 815
 Met Asn Tyr Leu Pro Thr Ser Met Gln Met Ser Val Gln Leu Glu Ala
 820 825 830
 Ser Pro Asp Phe Thr Ala Val Pro Val Gly Asp Asp Gln Asp Ser Tyr
 835 840 845
 Cys Leu Ser Ala Asn Gly Arg His Thr Ser Ser Trp Leu Val Thr Pro
 850 855 860
 Lys Ser Leu Gly Asn Val Asn Phe Ser Val Ser Ala Glu Ala Gln Gln
 865 870 875 880

Ser Ser Glu Pro Cys Gly Ser Glu Val Ala Thr Val Pro Ala Thr Gly
 885 890 895
 Arg Lys Asp Thr Val Val Lys Val Leu Ile Val Glu Pro Glu Gly Ile
 900 905 910
 Lys Gln Glu His Thr Phe Ser Ser Leu Phe Cys Ala Ser Asp Ala Glu
 915 920 925
 Ile Ser Glu Lys Met Ser Ser Gly Pro Pro Pro Thr Val Val Lys Asp
 930 935 940
 Ser Ala Arg Ala His Phe Ser Val Met Gly Asp Ile Leu Ser Ser Ala
 945 950 955 960
 Ile Arg Asn Thr Gln Asn Pro Leu His Met Pro Tyr Gly Cys Gly Glu
 965 970 975
 Gln Asn Met Val Leu Phe Ala Pro Asn Ile Tyr Val Leu Lys Tyr Leu
 980 985 990
 Asn Glu Thr Gln Gln Leu Thr Gln Lys Ile Lys Thr Lys Ala Leu Gly
 995 1000 1005
 Phe Leu Arg Ala Gly Tyr Gln Arg Glu Leu Asn Tyr Lys His Lys Asp
 1010 1015 1020
 Gly Ser Tyr Ser Ala Phe Gly Asp Gln Asn Gly Glu Arg Glu Gly Asn
 1025 1030 1035 1040
 Thr Trp Leu Thr Ala Phe Val Leu Lys Ser Phe Ala Gln Ala Arg Ala
 1045 1050 1055
 Phe Ile Phe Ile Asp Glu Ser His Ile Thr His Ala Phe Thr Trp Leu
 1060 1065 1070
 Ser Gln Lys Gln Lys Asp Asn Gly Cys Phe Arg Ser Ser Gly Ser Leu
 1075 1080 1085
 Phe Asn Asn Ala Met Lys Gly Gly Val Asp Asp Glu Met Thr Leu Ser
 1090 1095 1100
 Ala Tyr Ile Thr Met Ala Leu Leu Glu Ser Ser Leu Pro Ala Thr His
 1105 1110 1115 1120
 Pro Val Val Ser Lys Ala Leu Ser Cys Leu Glu Ser Ser Trp Lys Thr
 1125 1130 1135
 Ile Glu Gln Glu Arg Asn Ala Ser Phe Val Tyr Thr Lys Ala Leu Met
 1140 1145 1150
 Ala Tyr Ala Phe Ala Leu Ala Gly Asn Gln Asn Lys Arg Asp Glu Ile
 1155 1160 1165
 Leu Lys Ser Leu Asp Glu Glu Ala Ile Lys Glu Asn Asn Ser Ile His
 1170 1175 1180

Trp Lys Arg Pro Gln Lys Ser Arg Lys Ser Glu His His Leu Tyr Lys
 1185 1190 1195 1200
 Pro Gln Ala Ser Ser Ala Glu Val Glu Met Asn Ala Tyr Val Val Leu
 1205 1210 1215
 Ala Arg Leu Thr Ala Gln Pro Ala Pro Ser Pro Glu Asp Leu Thr Leu
 1220 1225 1230
 Ser Met Ser Thr Ile Met Trp Leu Thr Lys Gln Gln Asn Ser Asn Gly
 1235 1240 1245
 Gly Phe Ser Ser Thr Gln Asp Thr Val Val Ala Leu Asp Ala Leu Ser
 1250 1255 1260
 Lys Tyr Gly Ala Val Thr Phe Ser Arg Ser Gln Lys Thr Thr Leu Val
 1265 1270 1275 1280
 Thr Ile Gln Ser Thr Gly Ser Phe Ser Gln Lys Phe Gln Val Glu Asn
 1285 1290 1295
 Ser Asn Arg Leu Leu Gln Gln Val Ala Leu Pro Asp Ile Pro Gly
 1300 1305 1310
 Asp Tyr Thr Ile Ser Val Ser Gly Glu Gly Cys Val Tyr Ala Gln Thr
 1315 1320 1325
 Met Leu Arg Tyr Asn Met His Leu Glu Lys Gln Leu Ser Ala Phe Ala
 1330 1335 1340
 Ile Trp Val Gln Thr Val Pro Leu Thr Cys Asn Asn Pro Lys Gly His
 1345 1350 1355 1360
 Asn Ser Phe Gln Ile Ser Leu Glu Ile Ser Tyr Thr Gly Ser Arg Pro
 1365 1370 1375
 Ala Ser Asn Met Val Ile Ala Asp Val Lys Met Leu Ser Gly Phe Ile
 1380 1385 1390
 Pro Leu Lys Pro Thr Val Lys Lys Leu Glu Arg Leu Glu His Val Ser
 1395 1400 1405
 Arg Thr Glu Val Ser Asn Asn Asn Val Leu Ile Tyr Leu Asp Gln Val
 1410 1415 1420
 Thr Asn Gln Thr Leu Ala Phe Ser Phe Ile Ile Gln Gln Asp Ile Pro
 1425 1430 1435 1440
 Val Arg Asn Leu Gln Pro Ala Ile Val Lys Val Tyr Asp Tyr Tyr Glu
 1445 1450 1455
 Thr Asp Glu Met Ala Phe Ala Glu Tyr Ser Ser Pro Cys Ser Thr Asp
 1460 1465 1470
 Lys Gln Asn Val
 1475

<210> 115

<211> 751

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Alpha 2
macroglobulin Consensus Sequence

<400> 115

Ile Asp Glu Asp Asp Ile Thr Ile Arg Ser Tyr Phe Pro Glu Ser Trp
1 5 10 15

Leu Trp Glu Val Glu Glu Val Asp Arg Ser Pro Val Leu Thr Val Asn
20 25 30

Ile Thr Leu Pro Asp Ser Ile Thr Thr Trp Glu Ile Leu Ala Val Ser
35 40 45

Leu Ser Asn Thr Lys Gly Leu Cys Val Ala Asp Pro Val Glu Leu Thr
50 55 60

Val Phe Gln Asp Phe Phe Leu Glu Leu Arg Leu Pro Tyr Ser Val Val
65 70 75 80

Arg Gly Glu Gln Val Glu Leu Arg Ala Val Leu Tyr Asn Tyr Leu Pro
85 90 95

Ser Gln Asp Ile Lys Val Val Val Gln Leu Glu Val Glu Pro Leu Cys
100 105 110

Gln Ala Gly Phe Cys Ser Leu Ala Thr Gln Arg Thr Arg Ser Ser Gln
115 120 125

Ser Val Arg Pro Lys Ser Leu Ser Ser Val Ser Phe Pro Val Val Val
130 135 140

Val Pro Leu Ala Ser Gly Leu Ser Leu Val Glu Val Val Ala Ser Val
145 150 155 160

Pro Glu Phe Phe Val Lys Asp Ala Val Val Lys Thr Leu Lys Val Glu
165 170 175

Pro Glu Gly Ala Arg Lys Glu Glu Thr Val Ser Ser Leu Leu Pro
180 185 190

Pro Glu His Leu Gly Gly Leu Glu Val Ser Glu Val Pro Ala Leu
195 200 205

Lys Leu Pro Asp Asp Val Pro Asp Thr Glu Ala Glu Ala Val Ile Ser
210 215 220

Val Gln Gly Asp Pro Val Ala Gln Ala Ile Gln Asn Thr Leu Ser Gly
225 230 235 240

Glu Gly Leu Asn Asn Leu Leu Arg Leu Pro Ser Gly Cys Gly Glu Gln

245	250	255
Asn Met Ile Tyr Met Ala Pro Thr Val Tyr Val Leu His Tyr Leu Asp		
260	265	270
Glu Thr Trp Gln Trp Glu Lys Pro Gly Thr Lys Lys Lys Gln Lys Ala		
275	280	285
Ile Asp Leu Ile Asn Lys Gly Tyr Gln Arg Gln Leu Asn Tyr Arg Lys		
290	295	300
Ala Asp Gly Ser Tyr Ala Ala Phe Leu His Arg Ala Ser Ser Thr Trp		
305	310	315
Leu Thr Ala Phe Val Leu Lys Val Phe Ser Gln Ala Arg Asn Tyr Val		
325	330	335
Phe Ile Asp Glu Glu His Ile Cys Gly Ala Val Lys Trp Leu Ile Leu		
340	345	350
Asn Gln Gln Lys Asp Asp Gly Val Phe Arg Glu Ser Gly Pro Val Ile		
355	360	365
His Asn Glu Met Lys Gly Gly Val Gly Asp Asp Ala Glu Val Glu Val		
370	375	380
Thr Leu Thr Ala Phe Ile Thr Ile Ala Leu Leu Glu Ala Lys Leu Val		
385	390	395
400		
Cys Ile Ser Pro Val Val Ala Asn Ala Leu Ser Ile Leu Lys Ala Ser		
405	410	415
Asp Tyr Leu Leu Glu Asn Tyr Ala Asn Gly Gln Arg Val Tyr Thr Leu		
420	425	430
Ala Leu Thr Ala Tyr Ala Leu Ala Leu Ala Gly Val Leu His Lys Leu		
435	440	445
Lys Glu Ile Leu Lys Ser Leu Lys Glu Glu Leu Tyr Lys Ala Leu Val		
450	455	460
Lys Gly His Trp Glu Arg Pro Gln Lys Pro Lys Asp Ala Pro Gly His		
465	470	475
480		
Pro Tyr Ser Pro Gln Pro Gln Ala Ala Val Glu Met Thr Ser Tyr		
485	490	495
Ala Leu Leu Ala Leu Leu Thr Leu Leu Pro Phe Pro Lys Val Glu Met		
500	505	510
Ala Pro Lys Val Val Lys Trp Leu Thr Glu Gln Gln Tyr Tyr Gly Gly		
515	520	525
Gly Phe Gly Ser Thr Gln Asp Thr Val Met Ala Leu Gln Ala Leu Ser		
530	535	540
Lys Tyr Gly Ile Ala Thr Pro Thr His Lys Glu Lys Asn Leu Ser Val		

545	550	555	560
Thr Ile Gln Ser Pro Ser Gly Ser Phe Lys Ser His Phe Gln Ile Leu			
565	570	575	
Asn Asn Asn Ala Phe Leu Leu Arg Pro Val Glu Leu Pro Leu Asn Glu			
580	585	590	
Gly Phe Thr Val Thr Ala Lys Val Thr Gly Gln Gly Thr Leu Thr Leu			
595	600	605	
Val Thr Thr Tyr Arg Tyr Lys Val Leu Asp Lys Lys Asn Thr Phe Cys			
610	615	620	
Phe Asp Leu Lys Ile Glu Thr Val Pro Asp Thr Cys Val Glu Pro Lys			
625	630	635	640
Gly Ala Lys Asn Ser Asp Tyr Leu Ser Ile Cys Thr Arg Tyr Ala Gly			
645	650	655	
Ser Arg Ser Asp Ser Gly Met Ala Ile Ala Asp Ile Ser Met Leu Thr			
660	665	670	
Gly Phe Ile Pro Leu Lys Pro Asp Leu Lys Lys Leu Glu Asn Gly Val			
675	680	685	
Asp Arg Tyr Val Ser Lys Tyr Glu Ile Asp Gly Asn His Val Leu Leu			
690	695	700	
Tyr Leu Asp Lys Val Ser His Ser Glu Thr Glu Cys Val Gly Phe Lys			
705	710	715	720
Ile His Gln Asp Phe Glu Val Gly Leu Leu Gln Pro Ala Ser Val Lys			
725	730	735	
Val Tyr Asp Tyr Tyr Glu Pro Asp Glu Gln Cys Thr Ala Phe Tyr			
740	745	750	

<210> 116
 <211> 620
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Alpha 2
 macroglobulin Consensus Sequence

<400> 116
 Arg Leu Leu Trp Leu Leu Leu Leu Leu Leu Phe Phe Asp Ser Ser
 1 5 10 15

Leu Gln Lys Pro Arg Tyr Met Val Ile Val Pro Ser Ile Leu Arg Thr
 20 25 30

Glu Thr Pro Glu Lys Val Cys Val Gln Leu His Asp Leu Asn Glu Thr
 35 40 45

Val Thr Val Thr Val Ser Leu His Ser Phe Pro Gly Lys Arg Asn Leu
 50 55 60

Ser Ser Leu Phe Thr Val Leu Leu Ser Ser Lys Asp Leu Phe His Cys
 65 70 75 80

Val Ser Phe Thr Val Pro Gln Pro Gly Leu Phe Lys Ser Ser Lys Gly
 85 90 95

Glu Glu Ser Phe Val Val Gln Val Lys Gly Pro Thr His Thr Phe
 100 105 110

Lys Glu Lys Val Thr Val Leu Val Ser Ser Arg Arg Gly Leu Val Phe
 115 120 125

Ile Gln Thr Asp Lys Pro Ile Tyr Thr Pro Gly Gln Thr Val Arg Tyr
 130 135 140

Arg Val Phe Ser Val Asp Glu Asn Leu Arg Pro Leu Asn Glu Leu Ile
 145 150 155 160

Leu Val Tyr Ile Glu Asp Pro Glu Gly Asn Arg Val Asp Gln Trp Glu
 165 170 175

Val Asn Lys Leu Glu Gly Ile Phe Gln Leu Ser Phe Pro Ile Pro
 180 185 190

Ser Glu Pro Ile Gln Gly Thr Trp Lys Ile Val Ala Arg Tyr Glu Ser
 195 200 205

Gly Pro Glu Ser Asn Tyr Thr His Tyr Phe Glu Val Lys Glu Tyr Val
 210 215 220

Leu Pro Ser Phe Glu Val Ser Ile Thr Pro Pro Lys Pro Phe Ile Tyr
 225 230 235 240

Tyr Asp Asn Phe Lys Glu Phe Glu Val Thr Ile Cys Ala Arg Tyr Thr
 245 250 255

Tyr Gly Lys Pro Val Pro Gly Val Ala Tyr Val Arg Phe Gly Val Lys
 260 265 270

Asp Glu Asp Gly Lys Lys Glu Leu Leu Ala Gly Leu Glu Arg Ala
 275 280 285

Lys Leu Leu Asp Gly Asn Gly Glu Ile Cys Leu Ser Gln Glu Val Leu
 290 295 300

Leu Lys Glu Leu Gln Leu Lys Asn Glu Asp Leu Glu Gly Lys Ser Leu
 305 310 315 320

Tyr Val Ala Val Ala Val Ile Glu Ser Glu Gly Gly Asp Met Glu Glu
 325 330 335

Ala Glu Leu Gly Gly Ile Lys Ile Val Arg Ser Pro Tyr Lys Leu Lys
 340 345 350

Phe Val Lys Thr Pro Ser His Phe Lys Pro Gly Ile Pro Phe Phe Leu
 355 360 365
 Lys Val Leu Val Val Asp Pro Asp Gly Ser Pro Ala Pro Asn Val Pro
 370 375 380
 Val Lys Val Ser Ala Gln Asp Ala Ser Tyr Tyr Ser Asn Gly Thr Thr
 385 390 395 400
 Asp Glu Asp Gly Leu Ala Gln Phe Ser Ile Asn Thr Ser Gly Ile Ser
 405 410 415
 Ser Leu Ser Ile Thr Val Arg Thr Asn His Lys Glu Leu Pro Glu Glu
 420 425 430
 Val Gln Ala His Ala Glu Ala Gln Ala Thr Ala Tyr Ser Thr Val Ser
 435 440 445
 Leu Ser Lys Ser Tyr Ile His Leu Ser Ile Glu Arg Thr Leu Pro Cys
 450 455 460
 Gly Pro Gly Val Gly Glu Gln Ala Asn Phe Ile Leu Arg Gly Lys Ser
 465 470 475 480
 Leu Gly Glu Leu Lys Ile Leu His Phe Tyr Tyr Leu Ile Met Ser Lys
 485 490 495
 Gly Lys Ile Val Lys Thr Gly Arg Glu Pro Arg Glu Pro Gly Gln Gly
 500 505 510
 Leu Phe Ser Leu Ser Ile Pro Val Thr Pro Asp Leu Ala Pro Ser Phe
 515 520 525
 Arg Leu Val Ala Tyr Tyr Ile Leu Pro Gln Gly Glu Val Val Ala Asp
 530 535 540
 Ser Val Trp Ile Asp Val Glu Asp Cys Cys Ala Asn Lys Leu Asp Leu
 545 550 555 560
 Ser Phe Ser Pro Ser Lys Asp Tyr Arg Leu Pro Ala Gln Gln Val Lys
 565 570 575
 Leu Arg Val Glu Ala Asp Pro Gln Ser Leu Val Ala Leu Arg Ala Val
 580 585 590
 Asp Gln Ala Val Tyr Leu Leu Lys Pro Lys Ala Lys Leu Ser Met Ser
 595 600 605
 Lys Val Tyr Asp Leu Leu Glu Lys Ser Asp Leu Gly
 610 615 620

<210> 117
 <211> 931
 <212> PRT
 <213> *Caenorhabditis elegans*

<400> 117
 Met Arg Lys Gly Leu Arg Ala Thr Ala Ala Arg Cys Gly Leu Gly Leu
 1 5 10 15
 Gly Tyr Leu Leu Gln Met Leu Val Leu Pro Ala Leu Ala Leu Leu Ser
 20 25 30
 Ala Ser Gly Thr Gly Ser Ala Ala Gln Asp Asp Glu Phe Phe His Glu
 35 40 45
 Leu Pro Glu Thr Phe Pro Ser Pro Pro Glu Pro Leu Pro His Phe
 50 55 60
 Leu Ile Glu Pro Glu Glu Ala Tyr Ile Val Lys Asn Lys Pro Val Asn
 65 70 75 80
 Leu Tyr Cys Lys Ala Ser Pro Ala Thr Gln Ile Tyr Phe Lys Cys Asn
 85 90 95
 Ser Glu Trp Val His Gln Lys Asp His Val Val Asp Glu Arg Val Asp
 100 105 110
 Glu Thr Ser Gly Leu Ile Val Arg Glu Val Ser Ile Glu Ile Ser Arg
 115 120 125
 Gln Gln Val Glu Glu Leu Phe Gly Pro Glu Asp Tyr Trp Cys Gln Cys
 130 135 140
 Val Ala Trp Ser Ser Ala Gly Thr Thr Lys Ser Arg Lys Ala Tyr Val
 145 150 155 160
 Arg Ile Ala Tyr Leu Arg Lys Thr Phe Glu Gln Glu Pro Leu Gly Lys
 165 170 175
 Glu Val Ser Leu Glu Gln Glu Val Leu Leu Gln Cys Arg Pro Pro Glu
 180 185 190
 Gly Ile Pro Val Ala Glu Val Glu Trp Leu Lys Asn Glu Asp Ile Ile
 195 200 205
 Asp Pro Ala Glu Asp Arg Asn Phe Tyr Ile Thr Ile Asp His Asn Leu
 210 215 220 225
 Ile Ile Lys Gln Ala Arg Leu Ser Asp Thr Ala Asn Tyr Thr Cys Val
 230 235 240
 Ala Lys Asn Ile Val Ala Lys Arg Lys Ser Thr Thr Ala Thr Val Ile
 245 250 255
 Val Tyr Val Asn Gly Gly Trp Ser Thr Trp Thr Glu Trp Ser Val Cys
 260 265 270
 Asn Ser Arg Cys Gly Arg Gly Tyr Gln Lys Arg Thr Arg Thr Cys Thr
 275 280 285
 Asn Pro Ala Pro Leu Asn Gly Gly Ala Phe Cys Glu Gly Gln Ser Val

290	295	300
Gln Lys Ile Ala Cys Thr Thr Leu Cys Pro Val Asp Gly Arg Trp Thr		
305	310	315
320		
Ser Trp Ser Lys Trp Ser Thr Cys Gly Thr Glu Cys Thr His Trp Arg		
325	330	335
Arg Arg Glu Cys Thr Ala Pro Ala Pro Lys Asn Gly Gly Lys Asp Cys		
340	345	350
Asp Gly Leu Val Leu Gln Ser Lys Asn Cys Thr Asp Gly Leu Cys Met		
355	360	365
Gln Ala Ala Pro Asp Ser Asp Asp Val Ala Leu Tyr Val Gly Ile Val		
370	375	380
Ile Ala Val Thr Val Cys Leu Ala Ile Thr Val Val Val Ala Leu Phe		
385	390	395
400		
Val Tyr Arg Lys Asn His Arg Asp Phe Glu Ser Asp Ile Ile Asp Ser		
405	410	415
Ser Ala Leu Asn Gly Gly Phe Gln Pro Val Asn Ile Lys Ala Ala Arg		
420	425	430
Gln Asp Leu Leu Ala Val Pro Pro Asp Leu Thr Ser Ala Ala Ala Met		
435	440	445
Tyr Arg Gly Pro Val Tyr Ala Leu His Asp Val Ser Asp Lys Ile Pro		
450	455	460
Met Thr Asn Ser Pro Ile Leu Asp Pro Leu Pro Asn Leu Lys Ile Lys		
465	470	475
480		
Val Tyr Asn Ser Ser Gly Ala Val Thr Pro Gln Asp Asp Leu Ala Glu		
485	490	495
Phe Ser Ser Lys Leu Ser Pro Gln Met Thr Gln Ser Leu Leu Glu Asn		
500	505	510
Glu Ala Leu Asn Leu Lys Asn Gln Ser Leu Ala Arg Gln Thr Asp Pro		
515	520	525
Ser Cys Thr Ala Phe Gly Thr Phe Asn Ser Leu Gly Gly His Leu Ile		
530	535	540
Ile Pro Asn Ser Gly Val Ser Leu Leu Ile Pro Ala Gly Ala Ile Pro		
545	550	555
560		
Gln Gly Arg Val Tyr Glu Met Tyr Val Thr Val His Arg Lys Glu Asn		
565	570	575
Met Arg Pro Pro Met Glu Asp Ser Gln Thr Leu Leu Thr Pro Val Val		
580	585	590
Ser Cys Gly Pro Pro Gly Ala Leu Leu Thr Arg Pro Val Ile Leu Thr		

595	600	605	
Leu His His Cys Ala Asp Pro Ser Thr Glu Asp Trp Lys Ile Gln Leu			
610	615	620	
Lys Asn Gln Ala Val Gln Gly Gln Trp Glu Asp Val Val Val Val Gly			
625	630	635	640
Glu Glu Asn Phe Thr Thr Pro Cys Tyr Ile Gln Leu Asp Ala Glu Ala			
645	650	655	
Cys His Ile Leu Thr Glu Asn Leu Ser Thr Tyr Ala Leu Val Gly Gln			
660	665	670	
Ser Thr Thr Lys Ala Ala Ala Lys Arg Leu Lys Leu Ala Ile Phe Gly			
675	680	685	
Pro Leu Cys Cys Ser Ser Leu Glu Tyr Ser Ile Arg Val Tyr Cys Leu			
690	695	700	
Asp Asp Thr Gln Asp Ala Leu Lys Glu Val Leu Gln Leu Glu Arg Gln			
705	710	715	720
Met Gly Gly Gln Leu Leu Glu Glu Pro Lys Ala Leu His Phe Lys Gly			
725	730	735	
Ser Ile His Asn Leu Arg Leu Ser Ile His Asp Ile Ala His Ser Leu			
740	745	750	
Trp Lys Ser Lys Leu Leu Ala Lys Tyr Gln Glu Ile Pro Phe Tyr His			
755	760	765	
Ile Trp Ser Gly Ser Gln Arg Asn Leu His Cys Thr Phe Thr Leu Glu			
770	775	780	
Arg Leu Ser Leu Asn Thr Val Glu Leu Val Cys Lys Leu Cys Val Arg			
785	790	795	800
Gln Val Glu Gly Glu Gly Gln Ile Phe Gln Leu Asn Cys Thr Val Ser			
805	810	815	
Glu Glu Pro Thr Gly Ile Asp Leu Pro Leu Leu Asp Pro Ala Ser Thr			
820	825	830	
Ile Thr Thr Val Thr Gly Pro Ser Ala Phe Ser Ile Pro Leu Pro Ile			
835	840	845	
Arg Gln Lys Leu Cys Ser Ser Leu Asp Ala Pro Gln Thr Arg Gly His			
850	855	860	
Asp Trp Arg Met Leu Ala His Lys Leu Asn Leu Asp Arg Tyr Leu Asn			
865	870	875	880
Tyr Phe Ala Thr Lys Ser Ser Pro Thr Gly Val Ile Leu Asp Leu Trp			
885	890	895	
Glu Ala Gln Asn Phe Pro Asp Gly Asn Leu Ser Met Leu Ala Ala Val			

900

905

910

Leu Glu Glu Met Gly Arg His Glu Thr Val Val Ser Leu Ala Ala Glu
 915 920 925

Gly Gln Tyr
 930

<210> 118
 <211> 931
 <212> PRT
 <213> Homo sapiens

<400> 118
 Met Arg Lys Gly Leu Arg Ala Thr Ala Ala Arg Cys Gly Leu Gly Leu
 1 5 10 15

Gly Tyr Leu Leu Gln Met Leu Val Leu Pro Ala Leu Ala Leu Leu Ser
 20 25 30

Ala Ser Gly Thr Gly Ser Ala Ala Gln Asp Asp Asp Phe Phe His Glu
 35 40 45

Leu Pro Glu Thr Phe Pro Ser Asp Pro Pro Glu Pro Leu Pro His Phe
 50 55 60

Leu Ile Glu Pro Glu Glu Ala Tyr Ile Val Lys Asn Lys Pro Val Asn
 65 70 75 80

Leu Tyr Cys Lys Ala Ser Pro Ala Thr Gln Ile Tyr Phe Lys Cys Asn
 85 90 95

Ser Glu Trp Val His Gln Lys Asp His Ile Val Asp Glu Arg Val Asp
 100 105 110

Glu Thr Ser Gly Leu Ile Val Arg Glu Val Ser Ile Glu Ile Ser Arg
 115 120 125

Gln Gln Val Glu Glu Leu Phe Gly Pro Glu Asp Tyr Trp Cys Gln Cys
 130 135 140

Val Ala Trp Ser Ser Ala Gly Thr Thr Lys Ser Arg Lys Ala Tyr Val
 145 150 155 160

Arg Ile Ala Tyr Leu Arg Lys Thr Phe Glu Gln Glu Pro Leu Gly Lys
 165 170 175

Glu Val Ser Leu Glu Gln Glu Val Leu Leu Gln Cys Arg Pro Pro Glu
 180 185 190

Gly Ile Pro Val Ala Glu Val Glu Trp Leu Lys Asn Glu Asp Ile Ile
 195 200 205

Asp Pro Val Glu Asp Arg Asn Phe Tyr Ile Thr Ile Asp His Asn Leu
 210 215 220

Ile Ile Lys Gln Ala Arg Leu Ser Asp Thr Ala Asn Tyr Thr Cys Val
 225 230 235 240
 Ala Lys Asn Ile Val Ala Lys Arg Lys Ser Thr Thr Ala Thr Val Ile
 245 250 255
 Val Tyr Val Asn Gly Gly Trp Ser Thr Trp Thr Glu Trp Ser Val Cys
 260 265 270
 Asn Ser Arg Cys Gly Arg Gly Tyr Gln Lys Arg Thr Arg Thr Cys Thr
 275 280 285
 Asn Pro Ala Pro Leu Asn Gly Gly Ala Phe Cys Glu Gly Gln Ser Val
 290 295 300
 Gln Lys Ile Ala Cys Thr Thr Leu Cys Pro Val Asp Gly Arg Trp Thr
 305 310 315 320
 Pro Trp Ser Lys Trp Ser Thr Cys Gly Thr Glu Cys Thr His Trp Arg
 325 330 335
 Arg Arg Glu Cys Thr Ala Pro Ala Pro Lys Asn Gly Gly Lys Asp Cys
 340 345 350
 Asp Gly Leu Val Leu Gln Ser Lys Asn Cys Thr Asp Gly Leu Cys Met
 355 360 365
 Gln Thr Ala Pro Asp Ser Asp Asp Val Ala Leu Tyr Val Gly Ile Val
 370 375 380
 Ile Ala Val Ile Val Cys Leu Ala Ile Ser Val Val Val Ala Leu Phe
 385 390 395 400
 Val Tyr Arg Lys Asn His Arg Asp Phe Glu Ser Asp Ile Ile Asp Ser
 405 410 415
 Ser Ala Leu Asn Gly Gly Phe Gln Pro Val Asn Ile Lys Ala Ala Arg
 420 425 430
 Gln Asp Leu Leu Ala Val Pro Pro Asp Leu Thr Ser Ala Ala Ala Met
 435 440 445
 Tyr Arg Gly Pro Val Tyr Ala Leu His Asp Val Ser Asp Lys Ile Pro
 450 455 460
 Met Thr Asn Ser Pro Ile Leu Asp Pro Leu Pro Asn Leu Lys Ile Lys
 465 470 475 480
 Val Tyr Asn Thr Ser Gly Ala Val Ser Pro Gln Asp Asp Leu Ser Glu
 485 490 495
 Phe Thr Ser Lys Leu Ser Pro Gln Met Thr Gln Ser Leu Leu Glu Asn
 500 505 510
 Glu Ala Leu Ser Leu Lys Asn Gln Ser Leu Ala Arg Gln Thr Asp Pro
 515 520 525

Ser Cys Thr Ala Phe Gly Ser Phe Asn Ser Leu Gly Gly His Leu Ile
 530 535 540
 Val Pro Asn Ser Gly Val Ser Leu Leu Ile Pro Ala Gly Ala Ile Pro
 545 550 555 560
 Gln Gly Arg Val Tyr Glu Met Tyr Val Thr Val His Arg Lys Glu Thr
 565 570 575
 Met Arg Pro Pro Met Asp Asp Ser Gln Thr Leu Leu Thr Pro Val Val
 580 585 590
 Ser Cys Gly Pro Pro Gly Ala Leu Leu Thr Arg Pro Val Val Leu Thr
 595 600 605
 Met His His Cys Ala Asp Pro Asn Thr Glu Asp Trp Lys Ile Leu Leu
 610 615 620
 Lys Asn Gln Ala Ala Gln Gly Gln Trp Glu Asp Val Val Val Val Gly
 625 630 635 640
 Glu Glu Asn Phe Thr Thr Pro Cys Tyr Ile Lys Leu Asp Ala Glu Ala
 645 650 655
 Cys His Ile Leu Thr Glu Asn Leu Ser Thr Tyr Ala Leu Val Gly His
 660 665 670
 Ser Thr Thr Lys Ala Ala Ala Lys Arg Leu Lys Leu Ala Ile Phe Gly
 675 680 685
 Pro Leu Cys Cys Ser Ser Leu Glu Tyr Ser Ile Arg Val Tyr Cys Leu
 690 695 700
 Asp Asp Thr Gln Asp Ala Leu Lys Glu Ile Leu His Leu Glu Arg Gln
 705 710 715 720
 Thr Gly Gly Gln Leu Leu Glu Glu Pro Lys Ala Leu His Phe Lys Gly
 725 730 735
 Ser Thr His Asn Leu Arg Leu Ser Ile His Asp Ile Ala His Ser Leu
 740 745 750
 Trp Lys Ser Lys Leu Leu Ala Lys Tyr Gln Glu Ile Pro Phe Tyr His
 755 760 765
 Val Trp Ser Gly Ser Gln Arg Asn Leu His Cys Thr Phe Thr Leu Glu
 770 775 780
 Arg Phe Ser Leu Asn Thr Val Glu Leu Val Cys Lys Leu Cys Val Arg
 785 790 795 800
 Gln Val Glu Gly Glu Gly Gln Ile Phe Gln Leu Asn Cys Thr Val Ser
 805 810 815
 Glu Glu Pro Thr Gly Ile Asp Leu Pro Leu Leu Asp Pro Ala Asn Thr
 820 825 830

Ile	Thr	Thr	Val	Thr	Gly	Pro	Ser	Ala	Phe	Ser	Ile	Pro	Leu	Pro	Ile
835															
Arg	Gln	Lys	Leu	Cys	Ser	Ser	Leu	Asp	Ala	Pro	Gln	Thr	Arg	Gly	His
850															
Asp	Trp	Arg	Met	Leu	Ala	His	Lys	Leu	Asn	Leu	Asp	Arg	Tyr	Leu	Asn
865															
Tyr	Phe	Ala	Thr	Lys	Ser	Ser	Pro	Thr	Gly	Val	Ile	Leu	Asp	Leu	Trp
885															
Glu	Ala	Gln	Asn	Phe	Pro	Asp	Gly	Asn	Leu	Ser	Met	Leu	Ala	Ala	Val
900															
Leu	Glu	Glu	Met	Gly	Arg	His	Glu	Thr	Val	Val	Ser	Leu	Ala	Ala	Glu
915															
Gly	Gln	Tyr													
		930													

<210>	119														
<211>	931														
<212>	PRT														
<213>	Caenorhabditis elegans														
<400>	119														
Met	Arg	Lys	Gly	Leu	Arg	Ala	Thr	Ala	Ala	Arg	Cys	Gly	Leu	Gly	Leu
1				5											15
Gly	Tyr	Leu	Leu	Gln	Met	Leu	Val	Leu	Pro	Ala	Leu	Ala	Leu	Leu	Ser
		20													30
Ala	Ser	Gly	Thr	Gly	Ser	Ala	Ala	Gln	Asp	Asp	Asp	Phe	Phe	His	Glu
		35													45
Leu	Pro	Glu	Thr	Phe	Pro	Ser	Asp	Pro	Pro	Glu	Pro	Leu	Pro	His	Phe
		50													60
Leu	Ile	Glu	Pro	Glu	Glu	Ala	Tyr	Ile	Val	Lys	Asn	Lys	Pro	Val	Asn
		65													80
Leu	Tyr	Cys	Lys	Ala	Ser	Pro	Ala	Thr	Gln	Ile	Tyr	Phe	Lys	Cys	Asn
		85													95
Ser	Glu	Trp	Val	His	Gln	Lys	Asp	His	Ile	Val	Asp	Glu	Arg	Val	Asp
		100													110
Glu	Thr	Ser	Gly	Leu	Ile	Val	Arg	Glu	Val	Ser	Ile	Glu	Ile	Ser	Arg
		115													125
Gln	Gln	Val	Glu	Glu	Leu	Phe	Gly	Pro	Glu	Asp	Tyr	Trp	Cys	Gln	Cys
		130													140
Val	Ala	Trp	Ser	Ser	Ala	Gly	Thr	Thr	Lys	Ser	Arg	Lys	Ala	Tyr	Val
		145													160

Arg Ile Ala Tyr Leu Arg Lys Thr Phe Glu Gln Glu Pro Leu Gly Lys
165 170 175

Glu Val Ser Leu Glu Gln Glu Val Leu Leu Gln Cys Arg Pro Pro Glu
180 185 190

Gly Ile Pro Val Ala Glu Val Glu Trp Leu Lys Asn Glu Asp Ile Ile
195 200 205

Asp Pro Val Glu Asp Arg Asn Phe Tyr Ile Thr Ile Asp His Asn Leu
210 215 220

Ile Ile Lys Gln Ala Arg Leu Ser Asp Thr Ala Asn Tyr Thr Cys Val
225 230 235 240

Ala Lys Asn Ile Val Ala Lys Arg Lys Ser Thr Thr Ala Thr Val Ile
245 250 255

Val Tyr Val Asn Gly Gly Trp Ser Thr Trp Thr Glu Trp Ser Val Cys
260 265 270

Asn Ser Arg Cys Gly Arg Gly Tyr Gln Lys Arg Thr Arg Thr Cys Thr
275 280 285

Asn Pro Ala Pro Leu Asn Gly Gly Ala Phe Cys Glu Gly Gln Ser Val
290 295 300

Gln Lys Ile Ala Cys Thr Thr Leu Cys Pro Val Asp Gly Arg Trp Thr
305 310 315 320

Pro Trp Ser Lys Trp Ser Thr Cys Gly Thr Glu Cys Thr His Trp Arg
325 330 335

Arg Arg Glu Cys Thr Ala Pro Ala Pro Lys Asn Gly Gly Lys Asp Cys
340 345 350

Asp Gly Leu Val Leu Gln Ser Lys Asn Cys Thr Asp Gly Leu Cys Met
355 360 365

Gln Thr Ala Pro Asp Ser Asp Asp Val Ala Leu Tyr Val Gly Ile Val
370 375 380

Ile Ala Val Ile Val Cys Leu Ala Ile Ser Val Val Val Ala Leu Phe
385 390 395 400

Val Tyr Arg Lys Asn His Arg Asp Phe Glu Ser Asp Ile Ile Asp Ser
405 410 415

Ser Ala Leu Asn Gly Gly Phe Gln Pro Val Asn Ile Lys Ala Ala Arg
420 425 430

Gln Asp Leu Leu Ala Val Pro Pro Asp Leu Thr Ser Ala Ala Ala Met
435 440 445

Tyr Arg Gly Pro Val Tyr Ala Leu His Asp Val Ser Asp Lys Ile Pro
450 455 460

Met Thr Asn Ser Pro Ile Leu Asp Pro Leu Pro Asn Leu Lys Ile Lys
 465 470 475 480

Val Tyr Asn Thr Ser Gly Ala Val Thr Pro Gln Asp Asp Leu Ser Glu
 485 490 495

Phe Thr Ser Lys Leu Ser Pro Gln Met Thr Gln Ser Leu Leu Glu Asn
 500 505 510

Glu Ala Leu Ser Leu Lys Asn Gln Ser Leu Ala Arg Gln Thr Asp Pro
 515 520 525

Ser Cys Thr Ala Phe Gly Ser Phe Asn Ser Leu Gly Gly His Leu Ile
 530 . 535 540

Val Pro Asn Ser Gly Val Ser Leu Leu Ile Pro Ala Gly Ala Ile Pro
 545 550 555 560

Gln Gly Arg Val Tyr Glu Met Tyr Val Thr Val His Arg Lys Glu Thr
 565 570 575

Met Arg Pro Pro Met Asp Asp Ser Gln Thr Leu Leu Thr Pro Val Val
 580 585 590

Ser Cys Gly Pro Pro Gly Ala Leu Leu Thr Arg Pro Val Val Leu Thr
 595 600 605

Met His His Cys Ala Asp Pro Asn Thr Glu Asp Trp Lys Ile Leu Leu
 610 615 620

Lys Asn Gln Ala Ala Gln Gly Gln Trp Glu Asp Val Val Val Val Gly
 625 630 635 640

Glu Glu Asn Phe Thr Thr Pro Cys Tyr Ile Lys Leu Asp Ala Glu Ala
 645 650 655

Cys His Ile Leu Thr Glu Asn Leu Ser Thr Tyr Ala Leu Val Gly His
 660 665 670

Ser Thr Thr Lys Ala Ala Ala Lys Arg Leu Lys Leu Ala Ile Phe Gly
 675 680 685

Pro Leu Cys Cys Ser Ser Leu Glu Tyr Ser Ile Arg Val Tyr Cys Leu
 690 695 700

Asp Asp Thr Gln Asp Ala Leu Lys Glu Ile Leu His Leu Glu Arg Gln
 705 710 715 720

Thr Gly Gly Gln Leu Leu Glu Glu Pro Lys Ala Leu His Phe Lys Gly
 725 730 735

Ser Thr His Asn Leu Arg Leu Ser Ile His Asp Ile Ala His Ser Leu
 740 745 750

Trp Lys Ser Lys Leu Leu Ala Lys Tyr Gln Glu Ile Pro Phe Tyr His
 755 760 765

Val Trp Ser Gly Ser Gln Arg Asn Leu His Cys Thr Phe Thr Leu Glu
 770 775 780
 Arg Phe Ser Leu Asn Thr Val Glu Leu Val Cys Lys Leu Cys Val Arg
 785 790 795 800
 Gln Val Glu Gly Glu Gly Gln Ile Phe Gln Leu Asn Cys Thr Val Ser
 805 810 815
 Glu Glu Pro Thr Gly Ile Asp Leu Pro Leu Leu Asp Pro Ala Asn Thr
 820 825 830
 Ile Thr Thr Val Thr Gly Pro Ser Ala Phe Ser Ile Pro Leu Pro Ile
 835 840 845
 Arg Gln Lys Leu Cys Ser Ser Leu Asp Ala Pro Gln Thr Arg Gly His
 850 855 860
 Asp Trp Arg Met Leu Ala His Lys Leu Asn Leu Asp Arg Tyr Leu Asn
 865 870 875 880
 Tyr Phe Ala Thr Lys Ser Ser Pro Thr Gly Val Ile Leu Asp Leu Trp
 885 890 895
 Glu Ala Gln Asn Phe Pro Asp Gly Asn Leu Ser Met Leu Ala Ala Val
 900 905 910
 Leu Glu Glu Met Gly Arg His Glu Thr Val Val Ser Leu Ala Ala Glu
 915 920 925
 Gly Gln Tyr
 930

<210> 120
 <211> 931
 <212> PRT
 <213> *Caenorhabditis elegans*

<400> 120
 Met Arg Lys Gly Leu Arg Ala Thr Ala Ala Arg Cys Gly Leu Gly Leu
 1 5 10 15
 Gly Tyr Leu Leu Gln Met Leu Val Leu Pro Ala Leu Ala Leu Ser
 20 25 30
 Ala Ser Gly Thr Gly Ser Ala Ala Gln Asp Asp Asp Phe Phe His Glu
 35 40 45
 Leu Pro Glu Thr Phe Pro Ser Asp Pro Pro Glu Pro Leu Pro His Phe
 50 55 60
 Leu Ile Glu Pro Glu Glu Ala Tyr Ile Val Lys Asn Lys Pro Val Asn
 65 70 75 80
 Leu Tyr Cys Lys Ala Ser Pro Ala Thr Gln Ile Tyr Phe Lys Cys Asn

85

90

95

Ser Glu Trp Val His Gln Lys Asp His Ile Val Asp Glu Arg Val Asp
 100 105 110

Glu Thr Ser Gly Leu Ile Val Arg Glu Val Ser Ile Glu Ile Ser Arg
 115 120 125

Gln Gln Val Glu Glu Leu Phe Gly Pro Glu Asp Tyr Trp Cys Gln Cys
 130 135 140

Val Ala Trp Ser Ser Ala Gly Thr Thr Lys Ser Arg Lys Ala Tyr Val
 145 150 155 160

Arg Ile Ala Tyr Leu Arg Lys Thr Phe Glu Gln Glu Pro Leu Gly Lys
 165 170 175

Glu Val Ser Leu Glu Gln Glu Val Leu Leu Gln Cys Arg Pro Pro Glu
 180 185 190

Gly Ile Pro Val Ala Glu Val Glu Trp Leu Lys Asn Glu Asp Ile Ile
 195 200 205

Asp Pro Val Glu Asp Arg Asn Phe Tyr Ile Thr Ile Asp His Asn Leu
 210 215 220

Ile Ile Lys Gln Ala Arg Leu Ser Asp Thr Ala Asn Tyr Thr Cys Val
 225 230 235 240

Ala Lys Asn Ile Val Ala Lys Arg Lys Ser Thr Thr Ala Thr Val Ile
 245 250 255

Val Tyr Val Asn Gly Gly Trp Ser Thr Trp Thr Glu Trp Ser Val Cys
 260 265 270

Asn Ser Arg Cys Gly Arg Gly Tyr Gln Lys Arg Thr Arg Thr Cys Thr
 275 280 285

Asn Pro Ala Pro Leu Asn Gly Gly Ala Phe Cys Glu Gly Gln Ser Val
 290 295 300

Gln Lys Ile Ala Cys Thr Thr Leu Cys Pro Val Asp Gly Arg Trp Thr
 305 310 315 320

Pro Trp Ser Lys Trp Ser Thr Cys Gly Thr Glu Cys Thr His Trp Arg
 325 330 335

Arg Arg Glu Cys Thr Ala Pro Ala Pro Lys Asn Gly Gly Lys Asp Cys
 340 345 350

Asp Gly Leu Val Leu Gln Ser Lys Asn Cys Thr Asp Gly Leu Cys Met
 355 360 365

Gln Thr Ala Pro Asp Ser Asp Asp Val Ala Leu Tyr Val Gly Ile Val
 370 375 380

Ile Ala Val Ile Val Cys Leu Ala Ile Ser Val Val Val Ala Leu Phe

385	390	395	400
Val Tyr Arg Lys Asn His Arg Asp Phe Glu Ser Asp Ile Ile Asp Ser			
405	410	415	
Ser Ala Leu Asn Gly Gly Phe Gln Pro Val Asn Ile Lys Ala Ala Arg			
420	425	430	
Gln Asp Leu Leu Ala Val Pro Pro Asp Leu Thr Ser Ala Ala Ala Met			
435	440	445	
Tyr Arg Gly Pro Val Tyr Ala Leu His Asp Val Ser Asp Lys Ile Pro			
450	455	460	
Met Thr Asn Ser Pro Ile Leu Asp Pro Leu Pro Asn Leu Lys Ile Lys			
465	470	475	480
Val Tyr Asn Thr Ser Gly Ala Val Thr Pro Gln Asp Asp Leu Ser Glu			
485	490	495	
Phe Thr Ser Lys Leu Ser Pro Gln Met Thr Gln Ser Leu Leu Glu Asn			
500	505	510	
Glu Ala Leu Ser Leu Lys Asn Gln Ser Leu Ala Arg Gln Thr Asp Pro			
515	520	525	
Ser Cys Thr Ala Phe Gly Ser Phe Asn Ser Leu Gly Gly His Leu Ile			
530	535	540	
Val Pro Asn Ser Gly Val Ser Leu Leu Ile Pro Ala Gly Ala Ile Pro			
545	550	555	560
Gln Gly Arg Val Tyr Glu Met Tyr Val Thr Val His Arg Lys Glu Thr			
565	570	575	
Met Arg Pro Pro Met Asp Asp Ser Gln Thr Leu Leu Thr Pro Val Val			
580	585	590	
Ser Cys Gly Pro Pro Gly Ala Leu Leu Thr Arg Pro Val Val Leu Thr			
595	600	605	
Met His His Cys Ala Asp Pro Asn Thr Glu Asp Trp Lys Ile Leu Leu			
610	615	620	
Lys Asn Gln Ala Ala Gln Gly Gln Trp Glu Asp Val Val Val Val Gly			
625	630	635	640
Glu Glu Asn Phe Thr Thr Pro Cys Tyr Ile Gln Leu Asp Ala Glu Ala			
645	650	655	
Cys His Ile Leu Thr Glu Asn Leu Ser Thr Tyr Ala Leu Val Gly His			
660	665	670	
Ser Thr Thr Lys Ala Ala Lys Arg Leu Lys Leu Ala Ile Phe Gly			
675	680	685	
Pro Leu Cys Cys Ser Ser Leu Glu Tyr Ser Ile Arg Val Tyr Cys Leu			

690	695	700
Asp Asp Thr Gln Asp Ala Leu Lys Glu Ile Leu His Leu Glu Arg Gln		
705	710	715
720		
Thr Gly Gly Gln Leu Leu Glu Glu Pro Lys Ala Leu His Phe Lys Gly		
725	730	735
Ser Thr His Asn Leu Arg Leu Ser Ile His Asp Ile Ala His Ser Leu		
740	745	750
Trp Lys Ser Lys Leu Leu Ala Lys Tyr Gln Glu Ile Pro Phe Tyr His		
755	760	765
Val Trp Ser Gly Ser Gln Arg Asn Leu His Cys Thr Phe Thr Leu Glu		
770	775	780
Arg Phe Ser Leu Asn Thr Val Glu Leu Val Cys Lys Leu Cys Val Arg		
785	790	795
800		
Gln Val Glu Gly Glu Gly Gln Ile Phe Gln Leu Asn Cys Thr Val Ser		
805	810	815
Glu Glu Pro Thr Gly Ile Asp Leu Pro Leu Leu Asp Pro Ala Asn Thr		
820	825	830
Ile Thr Thr Val Thr Gly Pro Ser Ala Phe Ser Ile Pro Leu Pro Ile		
835	840	845
Arg Gln Lys Leu Cys Ser Ser Leu Asp Ala Pro Gln Thr Arg Gly His		
850	855	860
Asp Trp Arg Met Leu Ala His Lys Leu Asn Leu Asp Arg Tyr Leu Asn		
865	870	875
880		
Tyr Phe Ala Thr Lys Ser Ser Pro Thr Gly Val Ile Leu Asp Leu Trp		
885	890	895
Glu Ala Gln Asn Phe Pro Asp Gly Asn Leu Ser Met Leu Ala Ala Val		
900	905	910
Leu Glu Glu Met Gly Arg His Glu Thr Val Val Ser Leu Ala Ala Glu		
915	920	925
Gly Gln Tyr		
930		

<210> 121

<211> 945

<212> PRT

<213> Rattus norvegicus

<400> 121

Met Arg Ala Arg Ser Gly Ala Arg Gly Ala Leu Leu Leu Ala Leu Leu		
1	5	10
		15

Leu Cys Trp Asp Pro Thr Pro Ser Leu Ala Gly Ile Asp Ser Gly Gly
 20 25 30

Gln Ala Leu Pro Asp Ser Phe Pro Ser Ala Pro Ala Glu Gln Leu Pro
 35 40 45

His Phe Leu Leu Glu Pro Glu Asp Ala Tyr Ile Val Lys Asn Lys Pro
 50 55 60

Val Glu Leu His Cys Arg Ala Phe Pro Ala Thr Gln Ile Tyr Phe Lys
 65 70 75 80

Cys Asn Gly Glu Trp Val Ser Gln Lys Gly His Val Thr Gln Glu Ser
 85 90 95

Leu Asp Glu Ala Thr Gly Leu Arg Ile Arg Glu Val Gln Ile Glu Val
 100 105 110

Ser Arg Gln Gln Val Glu Glu Leu Phe Gly Leu Glu Asp Tyr Trp Cys
 115 120 125

Gln Cys Val Ala Trp Ser Ser Ser Gly Thr Thr Lys Ser Arg Arg Ala
 130 135 140

Tyr Ile Arg Ile Ala Tyr Leu Arg Lys Asn Phe Asp Gln Glu Pro Leu
 145 150 155 160

Ala Lys Glu Val Pro Leu Asp His Glu Val Leu Leu Gln Cys Arg Pro
 165 170 175

Pro Glu Gly Val Pro Val Ala Glu Val Glu Trp Leu Lys Asn Glu Asp
 180 185 190

Val Ile Asp Pro Ala Gln Asp Thr Asn Phe Leu Leu Thr Ile Asp His
 195 200 205

Asn Leu Ile Ile Arg Gln Ala Arg Leu Ser Asp Thr Ala Asn Tyr Thr
 210 215 220

Cys Val Ala Lys Asn Ile Val Ala Lys Arg Arg Ser Thr Thr Ala Thr
 225 230 235 240

Val Ile Val Tyr Val Asn Gly Gly Trp Ser Ser Trp Ala Glu Trp Ser
 245 250 255

Pro Cys Ser Asn Arg Cys Gly Arg Gly Trp Gln Lys Arg Thr Arg Thr
 260 265 270

Cys Thr Asn Pro Ala Pro Leu Asn Gly Gly Ala Phe Cys Glu Gly Gln
 275 280 285

Ala Cys Gln Lys Thr Ala Cys Thr Thr Val Cys Pro Val Asp Gly Ala
 290 295 300

Trp Thr Glu Trp Ser Lys Trp Ser Ala Cys Ser Thr Glu Cys Ala His
 305 310 315 320

Trp Arg Ser Arg Glu Cys Met Ala Pro Pro Pro Gln Asn Gly Gly Arg
 325 330 335
 Asp Cys Ser Gly Thr Leu Leu Asp Ser Lys Asn Cys Thr Asp Gly Leu
 340 345 350
 Cys Val Leu Asn Gln Arg Thr Leu Asn Asp Pro Lys Ser Arg Pro Leu
 355 360 365
 Glu Pro Ser Gly Asp Val Ala Leu Tyr Ala Gly Leu Val Val Ala Val
 370 375 380
 Phe Val Val Leu Ala Val Leu Met Ala Val Gly Val Ile Val Tyr Arg
 385 390 395 400
 Arg Asn Cys Arg Asp Phe Asp Thr Asp Ile Thr Asp Ser Ser Ala Ala
 405 410 415
 Leu Thr Gly Gly Phe His Pro Val Asn Phe Lys Thr Ala Arg Pro Ser
 420 425 430
 Asn Pro Gln Leu Leu His Pro Ser Ala Pro Pro Asp Leu Thr Ala Ser
 435 440 445
 Ala Gly Ile Tyr Arg Gly Pro Val Tyr Ala Leu Gln Asp Ser Ala Asp
 450 455 460
 Lys Ile Pro Met Thr Asn Ser Pro Leu Leu Asp Pro Leu Pro Ser Leu
 465 470 475 480
 Lys Ile Lys Val Tyr Asp Ser Ser Thr Ile Gly Ser Gly Ala Gly Leu
 485 490 495
 Ala Asp Gly Ala Asp Leu Leu Gly Val Leu Pro Pro Gly Thr Tyr Pro
 500 505 510
 Gly Asp Phe Ser Arg Asp Thr His Phe Leu His Leu Arg Ser Ala Ser
 515 520 525
 Leu Gly Ser Gln His Leu Leu Gly Leu Pro Arg Asp Pro Ser Ser Ser
 530 535 540
 Val Ser Gly Thr Phe Gly Cys Leu Gly Arg Leu Thr Ile Pro Gly
 545 550 555 560
 Thr Gly Val Ser Leu Leu Val Pro Asn Gly Ala Ile Pro Gln Gly Lys
 565 570 575
 Phe Tyr Asp Leu Tyr Leu Arg Ile Asn Lys Thr Glu Ser Thr Leu Pro
 580 585 590
 Leu Ser Glu Gly Ser Gln Thr Val Leu Ser Pro Ser Val Thr Cys Gly
 595 600 605
 Pro Thr Gly Leu Leu Leu Cys Arg Pro Val Val Leu Thr Val Pro His
 610 615 620

Cys Ala Glu Val Ile Ala Gly Asp Trp Ile Phe Gln Leu Lys Thr Gln
 625 630 635 640
 Ala His Gln Gly His Trp Glu Glu Val Val Thr Leu Asp Glu Glu Thr
 645 650 655
 Leu Asn Thr Pro Cys Tyr Cys Gln Leu Glu Ala Lys Ser Cys His Ile
 660 665 670
 Leu Leu Asp Gln Leu Gly Thr Tyr Val Phe Thr Gly Glu Ser Tyr Ser
 675 680 685
 Arg Ser Ala Val Lys Arg Leu Gln Leu Ala Ile Phe Ala Pro Ala Leu
 690 695 700
 Cys Thr Ser Leu Glu Tyr Ser Leu Arg Val Tyr Cys Leu Glu Asp Thr
 705 710 715 720
 Pro Ala Ala Leu Lys Glu Val Leu Glu Leu Glu Arg Thr Leu Gly Gly
 725 730 735
 Tyr Leu Val Glu Glu Pro Lys Thr Leu Leu Phe Lys Asp Ser Tyr His
 740 745 750
 Asn Leu Arg Leu Ser Leu His Asp Ile Pro His Ala His Trp Arg Ser
 755 760 765
 Lys Leu Leu Ala Lys Tyr Gln Glu Ile Pro Phe Tyr His Val Trp Asn
 770 775 780
 Gly Ser Gln Lys Ala Leu His Cys Thr Phe Thr Leu Glu Arg His Ser
 785 790 795 800
 Leu Ala Ser Thr Glu Phe Thr Cys Lys Val Cys Val Arg Gln Val Glu
 805 810 815
 Gly Glu Gly Gln Ile Phe Gln Leu His Thr Thr Leu Ala Glu Thr Pro
 820 825 830
 Ala Gly Ser Leu Asp Ala Leu Cys Ser Ala Pro Gly Asn Ala Ala Thr
 835 840 845
 Thr Gln Leu Gly Pro Tyr Ala Phe Lys Ile Pro Leu Ser Ile Arg Gln
 850 855 860
 Lys Ile Cys Asn Ser Leu Asp Ala Pro Asn Ser Arg Gly Asn Asp Trp
 865 870 875 880
 Arg Leu Leu Ala Gln Lys Leu Ser Met Asp Arg Tyr Leu Asn Tyr Phe
 885 890 895
 Ala Thr Lys Ala Ser Pro Thr Gly Val Ile Leu Asp Leu Trp Glu Ala
 900 905 910
 Arg Gln Gln Asp Asp Gly Asp Leu Asn Ser Leu Ala Ser Ala Leu Glu
 915 920 925

Glu Met Gly Lys Ser Glu Met Leu Val Ala Met Thr Thr Asp Gly Asp
930 935 940

Cys
945

<210> 122
<211> 104
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: U5 Consensus
Sequence

<400> 122
Pro Ser Phe Leu Val Ser Gly Thr Phe Asp Ala Arg Gly Gly Arg Leu
1 5 10 15

Arg Gly Pro Arg Thr Gly Val Arg Leu Ile Ile Pro Pro Gly Ala Ile
20 25 30

Pro Gln Gly Thr Arg Tyr Thr Cys Tyr Leu Val Val His Asp Lys Leu
35 40 45

Ser Thr Pro Pro Pro Leu Glu Glu Gly Glu Thr Leu Leu Ser Pro Val
50 55 60

Val Glu Cys Gly Pro His Gly Ala Leu Phe Leu Arg Pro Val Ile Leu
65 70 75 80

Glu Val Pro His Cys Ala Ser Leu Arg Pro Arg Asp Trp Glu Ile Val
85 90 95

Leu Leu Arg Ser Glu Asn Gly Gly
100

<210> 123
<211> 104
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: U5 Consensus
Sequence

<400> 123
Ser Gly Phe Leu Val Ser Gly Thr Phe Asp Ala Arg Gly Gly Arg Leu
1 5 10 15

Arg Gly Pro Arg Thr Gly Val Arg Leu Ile Ile Pro Pro Gly Ala Ile
20 25 30

Pro Gln Gly Thr Arg Tyr Thr Cys Tyr Leu Val Val His Asp Lys Leu
35 40 45

Ser Thr Pro Pro Pro Leu Glu Glu Gly Glu Thr Leu Leu Ser Pro Val
50 55 60

Val Glu Cys Gly Pro His Gly Ala Leu Phe Leu Arg Pro Val Ile Leu
65 70 75 80

Glu Val Pro His Cys Ala Ser Leu Arg Pro Arg Asp Trp Glu Leu Val
85 90 95

Leu Leu Arg Ser Glu Asn Gly Gly
100

<210> 124
<211> 96
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DEATH domain
Consensus Sequence

<400> 124

Pro Pro Gly Ala Ala Ser Leu Thr Glu Leu Thr Arg Glu Lys Leu Ala	1	5	10	15
Lys Leu Leu Asp His Asp Leu Gly Asp Asp Trp Arg Glu Leu Ala Arg	20	25	30	
Lys Leu Gly Leu Ser Glu Ala Asp Ile Asp Gln Ile Glu Thr Glu Ser	35	40	45	
Pro Arg Asp Leu Ala Glu Gln Ser Tyr Gln Leu Leu Arg Leu Trp Glu	50	55	60	
Gln Arg Glu Gly Lys Asn Ala Thr Leu Gly Thr Leu Leu Glu Ala Leu	65	70	75	80
Arg Lys Met Gly Arg Asp Asp Ala Val Glu Leu Leu Arg Ser Glu Leu	85	90	95	

<210> 125
<211> 51
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Thrombospondin
Type 1 Consensus Sequence

<400> 125
Trp Gly Glu Trp Ser Glu Trp Ser Pro Cys Ser Val Thr Cys Gly Gly

1 5 10 15
Gly Val Gln Thr Arg Thr Arg Cys Cys Asn Pro Pro Pro Asn Gly Gly
20 25 30
Gly Pro Cys Thr Gly Pro Asp Thr Glu Thr Arg Ala Cys Asn Glu Gln
35 40 45
Pro Cys Pro
50

<210> 126
<211> 83
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Death Domain
Consensus Sequence

<400> 126
Arg Glu Leu Cys Lys Leu Leu Asp Asp Pro Leu Gly Arg Asp Trp Arg
1 5 10 15
Arg Leu Ala Arg Lys Leu Gly Leu Ser Glu Glu Glu Ile Asp Gln Ile
20 25 30
Glu His Glu Asn Pro Arg Leu Ala Ser Pro Thr Tyr Gln Leu Leu Asp
35 40 45
Leu Trp Glu Gln Arg Gly Gly Lys Asn Ala Thr Val Gly Thr Leu Leu
50 55 60
Glu Ala Ile Arg Lys Met Gly Arg Asp Asp Ala Val Glu Leu Leu Glu
65 70 75 80
Ser Ala Leu

<210> 127
<211> 48
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Thrombospondin
Type 1 Consensus Sequence

<400> 127
Ser Pro Trp Ser Glu Trp Ser Pro Cys Ser Val Thr Cys Gly Lys Gly
1 5 10 15
Ile Arg Thr Arg Gln Arg Thr Cys Asn Ser Pro Ala Gly Gly Lys Pro
20 25 30

Cys Thr Gly Asp Ala Gln Glu Thr Glu Ala Cys Met Met Asp Pro Cys
35 40 45

<210> 128
<211> 63
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Immunoglobulin
C-2 Consensus Sequence

<400> 128
Leu Glu Gly Glu Ser Val Thr Leu Thr Cys Pro Ala Ser Gly Asp Pro
1 5 10 15

Val Pro Asn Ile Thr Trp Leu Lys Asp Gly Lys Pro Leu Pro Glu Ser
20 25 30

Arg Val Val Ala Ser Gly Ser Thr Leu Thr Ile Lys Asn Val Ser Leu
35 40 45

Glu Asp Ser Gly Leu Tyr Thr Cys Val Ala Arg Asn Ser Val Gly
50 55 60

<210> 129
<211> 56
<212> PRT
<213> Rattus norvegicus

<400> 129
Leu Phe Ala Gln Leu Ala Gln Leu Leu Pro Ala Thr Met Ser Asp Lys
1 5 10 15

Pro Asp Met Ala Glu Ile Glu Lys Phe Asp Lys Ser Lys Leu Lys Lys
20 25 30

Thr Glu Thr Gln Glu Lys Asn Pro Leu Pro Ser Lys Glu Thr Ile Glu
35 40 45

Gln Glu Lys Gln Ala Gly Glu Ser
50 55

<210> 130
<211> 343
<212> PRT
<213> Homo sapiens

<400> 130
Met Ala Gln Lys Gly Val Leu Gly Pro Gly Gln Leu Gly Ala Val Ala
1 5 10 15

Ile Leu Leu Tyr Leu Gly Leu Leu Arg Ser Gly Thr Gly Ala Glu Gly
 20 25 30

Ala Glu Ala Pro Cys Gly Val Ala Pro Gln Ala Arg Ile Thr Gly Gly
 35 40 45

Ser Ser Ala Val Ala Gly Gln Trp Pro Trp Gln Val Ser Ile Thr Tyr
 50 55 60

Glu Gly Val His Val Cys Gly Gly Ser Leu Val Ser Glu Gln Trp Val
 65 70 75 80

Leu Ser Ala Ala His Cys Phe Pro Ser Glu His His Lys Glu Ala Tyr
 85 90 95

Glu Val Lys Leu Gly Ala His Gln Leu Asp Ser Tyr Ser Glu Asp Ala
 100 105 110

Lys Val Ser Thr Leu Lys Asp Ile Ile Pro His Pro Ser Tyr Leu Gln
 115 120 125

Glu Gly Ser Gln Gly Asp Ile Ala Leu Leu Gln Leu Ser Arg Pro Ile
 130 135 140

Thr Phe Ser Arg Tyr Ile Arg Pro Ile Cys Leu Pro Ala Ala Asn Ala
 145 150 155 160

Ser Phe Pro Asn Gly Leu His Cys Thr Val Thr Gly Trp Gly His Val
 165 170 175

Ala Pro Ser Val Ser Leu Leu Thr Pro Lys Pro Leu Gln Gln Leu Glu
 180 185 190

Val Pro Leu Ile Ser Arg Glu Thr Cys Asn Cys Leu Tyr Asn Ile Asp
 195 200 205

Ala Lys Pro Glu Glu Pro His Phe Val Gln Glu Asp Met Val Cys Ala
 210 215 220

Gly Tyr Val Glu Gly Gly Lys Asp Ala Cys Gln Gly Asp Ser Gly Gly
 225 230 235 240

Pro Leu Ser Cys Pro Val Glu Gly Leu Trp Tyr Leu Thr Gly Ile Val
 245 250 255

Ser Trp Gly Asp Ala Cys Gly Ala Arg Asn Arg Pro Gly Val Tyr Thr
 260 265 270

Leu Ala Ser Ser Tyr Ala Ser Trp Ile Gln Ser Lys Val Thr Glu Leu
 275 280 285

Gln Pro Arg Val Val Pro Gln Thr Gln Glu Ser Gln Pro Asp Ser Asn
 290 295 300

Leu Cys Gly Ser His Leu Ala Phe Ser Ser Ala Pro Ala Gln Gly Leu
 305 310 315 320

Leu Arg Pro Ile Leu Phe Leu Pro Leu Gly Leu Ala Leu Gly Leu Leu
325 330 335

Ser Pro Trp Leu Ser Glu His
340

<210> 131
<211> 389
<212> PRT
<213> Xenopus laevis

<400> 131
Met Leu Gln Tyr Leu Ser Phe Val Leu Ile Phe Ile His His Gln Ala
1 5 10 15

Cys Gly Val Pro Val Ile Ser Asn Arg Ile Val Gly Gly Met Asp Ser
20 25 30

Lys Arg Gly Glu Trp Pro Trp Gln Ile Ser Leu Ser Tyr Lys Ser Asp
35 40 45

Ser Ile Cys Gly Gly Ser Leu Leu Thr Asp Ser Trp Val Met Thr Ala
50 55 60

Ala His Cys Ile Asp Ser Leu Asp Val Ser Tyr Thr Val Tyr Leu
65 70 75 80

Gly Ala Tyr Gln Leu Ser Ala Pro Asp Asn Ser Thr Val Ser Arg Gly
85 90 95

Val Lys Ser Ile Thr Lys His Pro Asp Phe Gln Tyr Glu Gly Ser Ser
100 105 110

Gly Asp Ile Ala Leu Ile Glu Leu Glu Lys Pro Val Thr Phe Thr Pro
115 120 125

Tyr Ile Leu Pro Ile Cys Leu Pro Ser Gln Asp Val Gln Phe Ala Ala
130 135 140

Gly Thr Met Cys Trp Val Thr Gly Trp Gly Asn Ile Gln Glu Gly Thr
145 150 155 160

Pro Leu Ile Ser Pro Lys Thr Ile Gln Lys Ala Glu Val Ala Ile Ile
165 170 175

Asp Ser Ser Val Cys Gly Thr Met Tyr Glu Ser Ser Leu Gly Tyr Ile
180 185 190

Pro Asp Phe Ser Phe Ile Gln Glu Asp Met Val Cys Ala Gly Tyr Lys
195 200 205

Glu Gly Arg Ile Asp Ala Cys Gln Gly Asp Ser Gly Gly Pro Leu Val
210 215 220

Cys Asn Val Asn Asn Val Trp Leu Gln Leu Gly Ile Val Ser Trp Gly

225	230	235	240
Tyr Gly Cys Ala Glu Pro Asn Arg Pro Gly Val Tyr Thr Lys Val Gln			
245	250	255	
Tyr Tyr Gln Asp Trp Leu Lys Thr Asn Val Pro Leu Ile Val Phe Ser			
260	265	270	
Glu Glu Gly Pro Ser Val Ala Pro Ser Ile Gly Pro Ser Ile Ala Pro			
275	280	285	
Ser Phe Gly Pro Ser Leu Gly Pro Arg Gly Val Ala Ser Thr Thr Ile			
290	295	300	
Ser Gln Thr Glu Ala Gln Ser Val Asn Ser Ile Glu Ile Asp Lys Thr			
305	310	315	320
Asn Ser Thr Thr Ile Phe Glu Thr Glu Ala Met Ser Met Ser Asn Asn			
325	330	335	
Thr Thr Met Asn Glu Thr Phe Ser Leu Val Ser Ser Thr Ile Ser Thr			
340	345	350	
Ala Leu Arg Ile Asn Glu Thr Lys Thr Ile Asp Asn Glu Ala Gln Ile			
355	360	365	
His Ala Cys Ser Leu His Thr Ile Ala Leu Thr Leu Ile Tyr Leu Phe			
370	375	380	
Ile Arg Phe Phe Val			
385			

<210> 132
 <211> 855
 <212> PRT
 <213> Homo sapiens

<400> 132			
Met Gly Ser Asp Arg Ala Arg Lys Gly Gly Gly Pro Lys Asp Phe			
1	5	10	15
Gly Ala Gly Leu Lys Tyr Asn Ser Arg His Glu Lys Val Asn Gly Leu			
20	25	30	
Glu Glu Gly Val Glu Phe Leu Pro Val Asn Asn Val Lys Lys Val Glu			
35	40	45	
Lys His Gly Pro Gly Arg Trp Val Val Leu Ala Ala Val Leu Ile Gly			
50	55	60	
Leu Leu Leu Val Leu Leu Gly Ile Gly Phe Leu Val Trp His Leu Gln			
65	70	75	80
Tyr Arg Asp Val Arg Val Gln Lys Val Phe Asn Gly Tyr Met Arg Ile			
85	90	95	

Thr Asn Glu Asn Phe Val Asp Ala Tyr Glu Asn Ser Asn Ser Thr Glu
 100 105 110

Phe Val Ser Leu Ala Ser Lys Val Lys Asp Ala Leu Lys Leu Leu Tyr
 115 120 125

Ser Gly Val Pro Phe Leu Gly Pro Tyr His Lys Glu Ser Ala Val Thr
 130 135 140

Ala Phe Ser Glu Gly Ser Val Ile Ala Tyr Tyr Trp Ser Glu Phe Ser
 145 150 155 160

Ile Pro Gln His Leu Val Glu Glu Ala Glu Arg Val Met Ala Glu Glu
 165 170 175

Arg Val Val Met Leu Pro Pro Arg Ala Arg Ser Leu Lys Ser Phe Val
 180 185 190

Val Thr Ser Val Val Ala Phe Pro Thr Asp Ser Lys Thr Val Gln Arg
 195 200 205

Thr Gln Asp Asn Ser Cys Ser Phe Gly Leu His Ala Arg Gly Val Glu
 210 215 220

Leu Met Arg Phe Thr Thr Pro Gly Phe Pro Asp Ser Pro Tyr Pro Ala
 225 230 235 240

His Ala Arg Cys Gln Trp Ala Leu Arg Gly Asp Ala Asp Ser Val Leu
 245 250 255

Ser Leu Thr Phe Arg Ser Phe Asp Leu Ala Ser Cys Asp Glu Arg Gly
 260 265 270

Ser Asp Leu Val Thr Val Tyr Asn Thr Leu Ser Pro Met Glu Pro His
 275 280 285

Ala Leu Val Gln Leu Cys Gly Thr Tyr Pro Pro Ser Tyr Asn Leu Thr
 290 295 300

Phe His Ser Ser Gln Asn Val Leu Leu Ile Thr Leu Ile Thr Asn Thr
 305 310 315 320

Glu Arg Arg His Pro Gly Phe Glu Ala Thr Phe Phe Gln Leu Pro Arg
 325 330 335

Met Ser Ser Cys Gly Gly Arg Leu Arg Lys Ala Gln Gly Thr Phe Asn
 340 345 350

Ser Pro Tyr Tyr Pro Gly His Tyr Pro Pro Asn Ile Asp Cys Thr Trp
 355 360 365

Asn Ile Glu Val Pro Asn Asn Gln His Val Lys Val Arg Phe Lys Phe
 370 375 380

Phe Tyr Leu Leu Glu Pro Gly Val Pro Ala Gly Thr Cys Pro Lys Asp
 385 390 395 400

Tyr Val Glu Ile Asn Gly Glu Lys Tyr Cys Gly Glu Arg Ser Gln Phe
 405 410 415
 Val Val Thr Ser Asn Ser Asn Lys Ile Thr Val Arg Phe His Ser Asp
 420 425 430
 Gln Ser Tyr Thr Asp Thr Gly Phe Leu Ala Glu Tyr Leu Ser Tyr Asp
 435 440 445
 Ser Ser Asp Pro Cys Pro Gly Gln Phe Thr Cys Arg Thr Gly Arg Cys
 450 455 460
 Ile Arg Lys Glu Leu Arg Cys Asp Gly Trp Ala Asp Cys Thr Asp His
 465 470 475 480
 Ser Asp Glu Leu Asn Cys Ser Cys Asp Ala Gly His Gln Phe Thr Cys
 485 490 495
 Lys Asn Lys Phe Cys Lys Pro Leu Phe Trp Val Cys Asp Ser Val Asn
 500 505 510
 Asp Cys Gly Asp Asn Ser Asp Glu Gln Gly Cys Ser Cys Pro Ala Gln
 515 520 525
 Thr Phe Arg Cys Ser Asn Gly Lys Cys Leu Ser Lys Ser Gln Gln Cys
 530 535 540
 Asn Gly Lys Asp Asp Cys Gly Asp Gly Ser Asp Glu Ala Ser Cys Pro
 545 550 555 560
 Lys Val Asn Val Val Thr Cys Thr Lys His Thr Tyr Arg Cys Leu Asn
 565 570 575
 Gly Leu Cys Leu Ser Lys Gly Asn Pro Glu Cys Asp Gly Lys Glu Asp
 580 585 590
 Cys Ser Asp Gly Ser Asp Glu Lys Asp Cys Asp Cys Gly Leu Arg Ser
 595 600 605
 Phe Thr Arg Gln Ala Arg Val Val Gly Gly Thr Asp Ala Asp Glu Gly
 610 615 620
 Glu Trp Pro Trp Gln Val Ser Leu His Ala Leu Gly Gln Gly His Ile
 625 630 635 640
 Cys Gly Ala Ser Leu Ile Ser Pro Asn Trp Leu Val Ser Ala Ala His
 645 650 655
 Cys Tyr Ile Asp Asp Arg Gly Phe Arg Tyr Ser Asp Pro Thr Gln Trp
 660 665 670
 Thr Val Phe Leu Gly Leu His Asp Gln Ser Gln Arg Ser Ala Pro Gly
 675 680 685
 Val Gln Glu Arg Arg Leu Lys Arg Ile Ile Ser His Pro Phe Phe Asn
 690 695 700

Asp Phe Thr Phe Asp Tyr Asp Ile Ala Leu Leu Glu Leu Glu Lys Pro
 705 710 715 720
 Ala Glu Tyr Ser Ser Met Val Arg Pro Ile Cys Leu Pro Asp Ala Ser
 725 730 735
 His Val Phe Pro Ala Gly Lys Ala Ile Trp Val Thr Gly Trp Gly His
 740 745 750
 Thr Gln Tyr Gly Gly Thr Gly Ala Leu Ile Leu Gln Lys Gly Glu Ile
 755 760 765
 Arg Val Ile Asn Gln Thr Thr Cys Glu Asn Leu Leu Pro Gln Gln Ile
 770 775 780
 Thr Pro Arg Met Met Cys Val Gly Phe Leu Ser Gly Gly Val Asp Ser
 785 790 795 800
 Cys Gln Gly Asp Ser Gly Gly Pro Leu Ser Ser Val Glu Ala Asp Gly
 805 810 815
 Arg Ile Phe Gln Ala Gly Val Val Ser Trp Gly Asp Gly Cys Ala Gln
 820 825 830
 Arg Asn Lys Pro Gly Val Tyr Thr Arg Leu Pro Leu Phe Arg Asp Trp
 835 840 845
 Ile Lys Glu Asn Thr Gly Val
 850 855

<210> 133

<211> 342

<212> PRT

<213> Rattus norvegicus

<400> 133

Met Ala Leu Arg Val Gly Leu Gly Leu Gly Gln Leu Glu Ala Leu Phe
 1 5 10 15

Val Leu Leu Leu Ile Gly Leu Leu Gln Ser Arg Ile Gly Ala Asp Gly
 20 25 30

Thr Glu Ala Ser Cys Gly Ala Val Ile Gln Pro Arg Ile Thr Gly Gly
 35 40 45

Gly Ser Ala Lys Pro Gly Gln Trp Pro Trp Gln Val Ser Ile Thr Tyr
 50 55 60

Asn Gly Val His Val Cys Gly Gly Ser Leu Val Ser Asn Gln Trp Val
 65 70 75 80

Val Ser Ala Ala His Cys Phe Pro Arg Glu His Ser Lys Glu Glu Tyr
 85 90 95

Glu Val Lys Leu Gly Ala His Gln Leu Asp Ser Phe Ser Asn Asp Ile
 100 105 110

Val Val His Thr Val Ala Gln Ile Ile Ser His Ser Ser Tyr Arg Glu
 115 120 125
 Glu Gly Ser Gln Gly Asp Ile Ala Leu Ile Arg Leu Ser Ser Pro Val
 130 135 140
 Thr Phe Ser Arg Tyr Ile Arg Pro Ile Cys Leu Pro Ala Ala Asn Ala
 145 150 155 160
 Ser Phe Pro Asn Gly Leu His Cys Thr Val Thr Gly Trp Gly His Val
 165 170 175
 Ala Pro Ser Val Ser Leu Gln Thr Pro Arg Pro Leu Gln Gln Leu Glu
 180 185 190
 Val Pro Leu Ile Ser Arg Glu Thr Cys Ser Cys Leu Tyr Asn Ile Asn
 195 200 205
 Ala Val Pro Glu Glu Pro His Thr Ile Gln Gln Asp Met Leu Cys Ala
 210 215 220
 Gly Tyr Val Lys Gly Gly Lys Asp Ala Cys Gln Gly Asp Ser Gly Gly
 225 230 235 240
 Pro Leu Ser Cys Pro Ile Asp Gly Leu Trp Tyr Leu Ala Gly Ile Val
 245 250 255
 Ser Trp Gly Asp Ala Cys Gly Ala Pro Asn Arg Pro Gly Val Tyr Thr
 260 265 270
 Leu Thr Ser Thr Tyr Ala Ser Trp Ile His His His Val Ala Glu Leu
 275 280 285
 Gln Pro Arg Val Val Pro Gln Thr Gln Glu Ser Gln Pro Asp Gly His
 290 295 300
 Leu Cys Asn His His Pro Val Phe Asn Leu Ala Ala Ala Gln Lys Leu
 305 310 315 320
 Ser Arg Pro Ile Leu Phe Leu Pro Leu Ser Leu Thr Leu Gly Leu Phe
 325 330 335
 Ser Leu Trp Leu Glu His
 340

<210> 134
 <211> 342
 <212> PRT
 <213> Rattus norvegicus

<400> 134
 Met Ala Leu Arg Val Gly Leu Gly Leu Gly Gln Leu Glu Ala Leu Phe
 1 5 10 15
 Ile Leu Leu Leu Ile Gly Leu Leu Gln Ser Arg Ile Gly Ala Asp Gly

20

25

30

Thr Glu Ala Ser Cys Gly Ala Val Ile Gln Pro Arg Ile Thr Gly Gly
 35 40 45

Gly Ser Ala Lys Pro Gly Gln Trp Pro Trp Gln Val Ser Ile Thr Tyr
 50 55 60

Asn Gly Val His Val Cys Gly Gly Ser Leu Val Ser Asn Gln Trp Val
 65 70 75 80

Val Ser Ala Ala His Cys Phe Pro Arg Glu His Ser Lys Glu Glu Tyr
 85 90 95

Glu Val Lys Leu Gly Ala His Gln Leu Asp Ser Phe Ser Asn Asp Ile
 100 105 110

Val Val His Thr Val Ala Gln Ile Ile Ser His Ser Ser Tyr Arg Glu
 115 120 125

Glu Gly Ser Gln Gly Asp Ile Ala Leu Ile Arg Leu Ser Ser Pro Val
 130 135 140

Thr Phe Ser Arg Tyr Ile Arg Pro Ile Cys Leu Pro Ala Ala Asn Ala
 145 150 155 160

Ser Phe Pro Asn Gly Leu His Cys Thr Val Thr Gly Trp Gly His Val
 165 170 175

Ala Pro Ser Val Ser Leu Gln Thr Pro Arg Pro Leu Gln Gln Leu Glu
 180 185 190

Val Pro Leu Ile Ser Arg Glu Thr Cys Ser Cys Leu Tyr Asn Ile Asn
 195 200 205

Ala Val Pro Glu Glu Pro His Thr Ile Gln Gln Asp Met Leu Cys Ala
 210 215 220

Gly Tyr Val Lys Gly Gly Lys Asp Ala Cys Gln Gly Asp Ser Gly Gly
 225 230 235 240

Pro Leu Ser Cys Pro Ile Asp Gly Leu Trp Tyr Leu Ala Gly Ile Val
 245 250 255

Ser Trp Gly Asp Ala Cys Gly Ala Pro Asn Arg Pro Gly Val Tyr Thr
 260 265 270

Leu Thr Ser Thr Tyr Ala Ser Trp Ile His His His Val Ala Glu Leu
 275 280 285

Gln Pro Arg Ala Val Pro Gln Thr Gln Glu Ser Gln Pro Asp Gly His
 290 295 300

Leu Cys Asn His His Pro Val Phe Asn Leu Ala Ala Ala Gln Lys Leu
 305 310 315 320

Ser Arg Pro Ile Leu Phe Leu Pro Leu Ser Leu Thr Leu Gly Leu Phe

325

330

335

Ser Leu Trp Leu Glu His
340

<210> 135
<211> 230
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Trypsin-like
serine protease Consensus Sequence

<400> 135
Arg Ile Val Gly Gly Ser Glu Ala Asn Ile Gly Ser Phe Pro Trp Gln
1 5 10 15

Val Ser Leu Gln Tyr Arg Gly Gly Arg His Phe Cys Gly Gly Ser Leu
20 25 30

Ile Ser Pro Arg Trp Val Leu Thr Ala Ala His Cys Val Tyr Gly Ser
35 40 45

Ala Pro Ser Ser Ile Arg Val Arg Leu Gly Ser His Asp Leu Ser Ser
50 55 60

Gly Glu Glu Thr Gln Thr Val Lys Val Ser Lys Val Ile Val His Pro
65 70 75 80

Asn Tyr Asn Pro Ser Thr Tyr Asp Asn Asp Ile Ala Leu Leu Lys Leu
85 90 95

Ser Glu Pro Val Thr Leu Ser Asp Thr Val Arg Pro Ile Cys Leu Pro
100 105 110

Ser Ser Gly Tyr Asn Val Pro Ala Gly Thr Thr Cys Thr Val Ser Gly
115 120 125

Trp Gly Arg Thr Ser Glu Ser Ser Gly Ser Leu Pro Asp Thr Leu Gln
130 135 140

Glu Val Asn Val Pro Ile Val Ser Asn Ala Thr Cys Arg Arg Ala Tyr
145 150 155 160

Ser Gly Gly Pro Ala Ile Thr Asp Asn Met Leu Cys Ala Gly Gly Leu
165 170 175

Glu Gly Gly Lys Asp Ala Cys Gln Gly Asp Ser Gly Gly Pro Leu Val
180 185 190

Cys Asn Asp Pro Arg Trp Val Leu Val Gly Ile Val Ser Trp Gly Ser
195 200 205

Tyr Gly Cys Ala Arg Pro Asn Lys Pro Gly Val Tyr Thr Arg Val Ser
210 215 220

Ser Tyr Leu Asp Trp Ile
225 230

<210> 136
<211> 217
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Trypsin
Consensus Sequence

<400> 136
Ile Val Gly Gly Arg Glu Ala Gln Ala Gly Ser Phe Pro Trp Gln Val
1 5 10 15

Ser Leu Gln Val Ser Ser Gly His Phe Cys Gly Gly Ser Leu Ile Ser
20 25 30

Glu Asn Trp Val Leu Thr Ala Ala His Cys Val Ser Gly Ala Ser Ser
35 40 45

Val Arg Val Val Leu Gly Glu His Asn Leu Gly Thr Thr Glu Gly Thr
50 55 60

Glu Gln Lys Phe Asp Val Lys Lys Ile Ile Val His Pro Asn Tyr Asn
65 70 75 80

Pro Asp Thr Asn Asp Ile Ala Leu Leu Lys Leu Lys Ser Pro Val Thr
85 90 95

Leu Gly Asp Thr Val Arg Pro Ile Cys Leu Pro Ser Ala Ser Ser Asp
100 105 110

Leu Pro Val Gly Thr Thr Cys Ser Val Ser Gly Trp Gly Arg Thr Lys
115 120 125

Asn Leu Gly Thr Ser Asp Thr Leu Gln Glu Val Val Val Pro Ile Val
130 135 140

Ser Arg Glu Thr Cys Arg Ser Ala Tyr Gly Gly Thr Val Thr Asp Thr
145 150 155 160

Met Ile Cys Ala Gly Ala Leu Gly Gly Lys Asp Ala Cys Gln Gly Asp
165 170 175

Ser Gly Gly Pro Leu Val Cys Ser Asp Gly Glu Leu Val Gly Ile Val
180 185 190

Ser Trp Gly Tyr Gly Cys Ala Val Gly Asn Tyr Pro Gly Val Tyr Thr
195 200 205

Arg Val Ser Arg Tyr Leu Asp Trp Ile
210 215

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<210> 137
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NOV2a and b
      Primer 1

<400> 137
tcaaatgttc agttttgatt gttgttcttg                                30

<210> 138
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NOV2a and b
      Primer 2

<400> 138
tttttgctaa aagcagcaat gccat                                25

<210> 139
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NOV2c Primer 1

<400> 139
attgacttat gcttcctagt tcgttgc                                27

<210> 140
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NOV2c Primer 2

<400> 140
caacattnaa aagaatggac gattttca                                28

<210> 141
<211> 25
<212> DNA
<213> Artificial Sequence

<220>

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<223> Description of Artificial Sequence: NOV2d Primer 1

<400> 141
ctgtattccg gatcgatgca agaag

25

<210> 142
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NOV2d Primer 2

<400> 142
tcttaaggag aagaaaatct gccgaag

27

<210> 143
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NOV3a Primer 1

<400> 143
tggaaactct aaaaagcaga gcgcctc

27

<210> 144
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NOV3a Primer 2

<400> 144
cctctaggtg agtcagtgcg tcactct

27

<210> 145
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NOV6 Primer 1

<400> 145
atggggggcc tgacagc

17

<210> 146
<211> 25
<212> DNA

<213> Artificial Sequence		
<220>		
<223> Description of Artificial Sequence: NOV6 Primer 2		
<400> 146		
ttatgtggca cagtcacatag tctgc	25	
<210> 147		
<211> 30		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Description of Artificial Sequence: NOV8 Primer 1		
<400> 147		
atgatatgtc ttccacatca ctgacattca	30	
<210> 148		
<211> 26		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Description of Artificial Sequence: NOV8 Primer 2		
<400> 148		
ttagagccac aaactaacca gctcat	26	
<210> 149		
<211> 20		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Description of Artificial Sequence: Ag3802 Forward Primer		
<400> 149		
gtcgatggga catctttcct	20	
<210> 150		
<211> 26		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Description of Artificial Sequence: Ag3802 Probe Primer		
<400> 150		
cttcggatca ctatcatcca gtgccca	26	

<210> 151
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag3802 Reverse
Primer

<400> 151
atgaggaagt agcccacggtt 20

<210> 152
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag4849 Forward
Primer

<400> 152
gccagttcta cctcaaggttc ct 22

<210> 153
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag4849 Probe
Primer

<400> 153
ctaccaccat gtgtcccgcc gttt 24

<210> 154
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag4849 Reverse
Primer

<400> 154
catagtcaga gtcgagcagg aa 22

<210> 155
<211> 19
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Ag400 Forward Primer

<400> 155
acgatcctgg gctggacag 19

<210> 156

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Ag400 Probe Primer

<400> 156
catctgcgcg tagccctcc a 21

<210> 157

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Ag400 Reverse Primer

<400> 157
gcttcaaccc cctcgagttc 20

<210> 158

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Ag2866 Forward Primer

<400> 158
tatgtactcg tggccctga ga 22

<210> 159

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Ag2866 Probe Primer

<400> 159 acgtctacag ctttggctac ctccgg	26
<210> 160 <211> 22 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Ag2866 Reverse Primer	
<400> 160 agtggctgat gaagtcata g a	22
<210> 161 <211> 19 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Ag3077 Forward Primer	
<400> 161 aatgtggagc tgtgcctgt	19
<210> 162 <211> 23 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Ag3077 Probe Primer	
<400> 162 gactcatgcc aggaatgtgc ccc	23
<210> 163 <211> 20 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Ag3077 Reverse Primer	
<400> 163 gaagagacct ttgacgtccc	20

<210> 164
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2908 Forward Primer

<400> 164
attgtttaca tcaaacggca tt 22

<210> 165
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2908 Probe Primer

<400> 165
aatccttttg aggcccttgt cccata 26

<210> 166
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2908 Reverse Primer

<400> 166
tcccaagttga gactcctact ga 22

<210> 167
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag1522 Forward Primer

<400> 167
tgacttcgac acagacatca ct 22

<210> 168
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag1522 Probe
Primer

<400> 168
actcatctgc tgccctgact ggtg 24

<210> 169
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag1522 Reverse
Primer

<400> 169
ccttgccgtc tttaaagttga c 21

<210> 170
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag1848 Forward
Primer

<400> 170
tgacttcgac acagacatca ct 22

<210> 171
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag1848 Probe
Primer

<400> 171
actcatctgc tgccctgact ggtg 24

<210> 172
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag1848 Reverse
Primer

<400> 172

ccttgcgtc ttAAAGTTGA C

21

<210> 173
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2263 Forward Primer

<400> 173
tgacttcgac acagacatca CT

22

<210> 174
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2263 Probe Primer

<400> 174
actcatctgc tgccctgact ggtg

24

<210> 175
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2263 Reverse Primer

<400> 175
ccttgcgtc ttAAAGTTGA C

21

<210> 176
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2422 Forward Primer

<400> 176
ggctccctgg acactctct

19

<210> 177
<211> 26

<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Description of Artificial Sequence: Ag2422 Probe		
Primer		
<400> 177		
ctgtcaccac ccagctggga ccttat		26
<210> 178		
<211> 20		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Description of Artificial Sequence: Ag2422 Reverse		
Primer		
<400> 178		
tggacagtgg gatcttgaag		20
<210> 179		
<211> 20		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Description of Artificial Sequence: Ag2421 Forward		
Primer		
<400> 179		
tgaggctgag ctctctgtgt		20
<210> 180		
<211> 26		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Description of Artificial Sequence: Ag2421 Probe		
Primer		
<400> 180		
tctgctaact gtgaaggatc tcacca		26
<210> 181		
<211> 20		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Description of Artificial Sequence: Ag2421 Reverse		

Primer

<400> 181

ctgggtccaca ttgtcaggaa

20

<210> 182

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Ag2873 Forward
Primer

<400> 182

ccctgctcac aagactgact ag

22

<210> 183

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Ag2873 Probe
Primer

<400> 183

ctccacgcag tttcaggcat gaag

24

<210> 184

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Ag2873 Reverse
Primer

<400> 184

gacatttagga gacaacctcc aa

22

<210> 185

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Ag2878 Forward
Primer

<400> 185

catctctaag aatgccctca ga

22

<210> 186
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2878 Probe
Primer

<400> 186
cttcgctcgc ttacacacct aagcct 26

<210> 187
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2878 Reverse
Primer

<400> 187
gagggtctcc agatggttat tg 22

<210> 188
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag1799 Forward
Primer

<400> 188
gaccaacggc tttcttcaag 20

<210> 189
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag1799 Probe
Primer

<400> 189
actttccttc ttgcgacttg gatcct 26

<210> 190
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag1799 Reverse
Primer

<400> 190
tcagttttc aaagcacaca aa

22

<210> 191
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2911 Forward
Primer

<400> 191
cagggatgga atgcattatg

20

<210> 192
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2911 Probe
Primer

<400> 192
caatgtcacc tgtactcaga tctgtga

27

<210> 193
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag2911 Reverse
Primer

<400> 193
gctctccaaa gcagtaagga a

21

<210> 194
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ag1559 Forward
Primer

<400> 194	
caggacctcg gttatcaaca	20
<210> 195	
<211> 23	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: Ag1559 Probe	
Primer	
<400> 195	
acctacgttg agcaaccgtg ccg	23
<210> 196	
<211> 19	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: Ag1559 Reverse	
Primer	
<400> 196	
atcgtaactcg ctggcgtaa	19
<210> 197	
<211> 1062	
<212> DNA	
<213> Homo sapiens	
<400> 197	
ggatcctccc agttggagga ggtgtttcac tctgaaaaag agacgaagag ctcaagaata 60	
aaggctgaag aaaaagaggt ggttaagaata aaggctgaag gaaaagagat tgagaacaca 120	
gaagcagtac atcaacaatt cccaaaagttt ttgactgaaa taagcaaact cactaatgat 180	
tatgaactga acataaccaa caggctgttt ggagaaaaaa catacctctt ccttcaaaaa 240	
tacttagatt atgttggaaaa atattatcat gcatctctgg aacctgttga ttttgtaaat 300	
gcagccgatg aaagtgcggaa gaagattaat tcctgggttg aaagcaaaac aaatggaaaa 360	
atcaaggact tggcccttca tggctctatt agtagctcta ccaagctggg gctggtaac 420	
atggtttatt ttaaaggggca atggggacagg gagtttaaga aagaaaatac taaggaagag 480	
aaattttggaa tgaataagag cacaagtaaa tctgtacaga tcatgacaca gagccattcc 540	
ttagcttca ctttccttggaa ggacttgcag gccaaaattc tagggattcc atataaaaac 600	
aacgacctaa gcatgtttgt gcttctgccc aacgacatcg atggcttggaa gaagataata 660	
gataaaataa gtcctgagaa attggtagag tggacttagtc cagggcatat ggaagaaaaga 720	
aaggtgaatc tgcacttgcc ccgggttttag gttggggacata gttacgatct agaggcggtc 780	
ctggctgcca tggggatgggg ccatgccttc agtggacaca aagccgacta ctcgggaatg 840	
tcgtcaggct ccgggttgta cggccagaag ttccctgcaca gttcctttgtt ggcagtaact 900	
gaggaaggca cggaggctgc agctgccact ggcataaggct ttactgtcac atccggccca 960	
ggtcatggaaa atgttcaactg caatcatccc ttccctttct tcattcaggca caatgaatcc 1020	
aacagcatcc tcttcttcgg cagattttct ttcctctcg ag	1062

<210> 198

<211> 354
<212> PRT
<213> Homo sapiens

<400> 198
Gly Ser Ser Gln Leu Glu Glu Val Phe His Ser Glu Lys Glu Thr Lys
1 5 10 15
Ser Ser Arg Ile Lys Ala Glu Glu Lys Glu Val Val Arg Ile Lys Ala
20 25 30
Glu Gly Lys Glu Ile Glu Asn Thr Glu Ala Val His Gln Gln Phe Gln
35 40 45
Lys Phe Leu Thr Glu Ile Ser Lys Leu Thr Asn Asp Tyr Glu Leu Asn
50 55 60
Ile Thr Asn Arg Leu Phe Gly Glu Lys Thr Tyr Leu Phe Leu Gln Lys
65 70 75 80
Tyr Leu Asp Tyr Val Glu Lys Tyr Tyr His Ala Ser Leu Glu Pro Val
85 90 95
Asp Phe Val Asn Ala Ala Asp Glu Ser Arg Lys Lys Ile Asn Ser Trp
100 105 110
Val Glu Ser Lys Thr Asn Glu Lys Ile Lys Asp Leu Phe Pro Asp Gly
115 120 125
Ser Ile Ser Ser Ser Thr Lys Leu Val Leu Val Asn Met Val Tyr Phe
130 135 140
Lys Gly Gln Trp Asp Arg Glu Phe Lys Lys Glu Asn Thr Lys Glu Glu
145 150 155 160
Lys Phe Trp Met Asn Lys Ser Thr Ser Lys Ser Val Gln Met Met Thr
165 170 175
Gln Ser His Ser Phe Ser Phe Thr Phe Leu Glu Asp Leu Gln Ala Lys
180 185 190
Ile Leu Gly Ile Pro Tyr Lys Asn Asn Asp Leu Ser Met Phe Val Leu
195 200 205
Leu Pro Asn Asp Ile Asp Gly Leu Glu Lys Ile Ile Asp Lys Ile Ser
210 215 220
Pro Glu Lys Leu Val Glu Trp Thr Ser Pro Gly His Met Glu Glu Arg
225 230 235 240
Lys Val Asn Leu His Leu Pro Arg Phe Glu Val Glu Asp Ser Tyr Asp
245 250 255
Leu Glu Ala Val Leu Ala Ala Met Gly Met Gly Asp Ala Phe Ser Glu
260 265 270
His Lys Ala Asp Tyr Ser Gly Met Ser Ser Gly Ser Gly Leu Tyr Ala

275	280	285
Gln Lys Phe Leu His Ser Ser Phe Val Ala Val Thr Glu Glu Gly Thr		
290	295	300
Glu Ala Ala Ala Ala Thr Gly Ile Gly Phe Thr Val Thr Ser Ala Pro		
305	310	315
Gly His Glu Asn Val His Cys Asn His Pro Phe Leu Phe Phe Ile Arg		
325	330	335
His Asn Glu Ser Asn Ser Ile Leu Phe Phe Gly Arg Phe Ser Ser Pro		
340	345	350
Leu Glu		

<210> 199	
<211> 33	
<212> DNA	
<213> Artificial Sequence	
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SF6

<400> 225
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<210> 226
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SR2

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